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**Technical Report**

**A COMPREHENSIVE TASK ANALYSIS OF THE AH-64 MISSION WITH  
CREW WORKLOAD ESTIMATES AND PRELIMINARY DECISION RULES  
FOR DEVELOPING AN AH-64 WORKLOAD PREDICTION MODEL**

**Volume II : Appendixes A - E**

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**ANACAPA SCIENCES, INC.  
MILITARY PROGRAMS**

**P. O. BOX 489  
FT. RUCKER, ALABAMA 36362  
(205) 598-6326**

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COMPREHENSIVE TASK ANALYSIS OF THE AH-64 MISSION WITH  
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FOR DEVELOPING AN AH-64 WORKLOAD PREDICTION MODEL

Volume II: Appendixes A - E

Prepared by:

Sandra M. Szabo  
and  
Carl R. Bierbaum  
Anacapa Sciences, Inc.  
Fort Rucker, Alabama

Prepared for:

U.S. Army Research Institute  
Aviation Research and Development Activity  
Fort Rucker, Alabama



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19. ABSTRACT (Continue on reverse if necessary and identify by block number) A composite scenario was used to conduct a comprehensive task analysis of the AH-64 attack mission. The analysis used a top-down approach to identify the phases, segments, functions, and tasks for the mission. Seven phases, 49 segments, 153 functions, and 653 tasks were identified. The crewmember performing each task was identified and estimates of the sensory, cognitive, and psychomotor workload associated with the tasks were derived. Estimates of the duration of each task also were derived. The mission/task analysis data will be used to develop a computer model of workload for AH-64A crewmembers. The model will use a bottom-up approach to build mission functions from tasks and mission segments from functions. Decision rules were written to specify the procedure for combining the tasks into functions and the functions into segments. The model will permit an analysis of total workload experienced by each crewmember in the performance of both sequential and concurrent tasks. <i>25 x Cognitive, 25 x Crews, x Psychomotor tests</i>					
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CREW WORKLOAD ESTIMATES AND PRELIMINARY DECISION RULES  
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## **A P P E N D I X   A**

### **SUMMARY OF AH-64 MISSION PHASES AND SEGMENTS**

**Table A-1**

**AH-64 Mission Phases and Segments**

**PREFLIGHT PHASE (1)**

- Segment 01: Flight Planning
- Segment 02: Exterior Cockpit Check
- Segment 03: Preflight Walk Around
- Segment 04: Interior Cockpit Check
- Segment 05: Starting APU
- Segment 06: After Starting APU

**DEPARTURE PHASE (2)**

- Segment 07: Taxi
- \* Segment 08: Takeoff (Contour)

**ENROUTE PHASE (3)**

- Segment 09: Contour Flight
- Segment 10: NOE Flight
- \* Segment 11: Approach (Contour)
- \* Segment 12: Approach (NOE)
- \* Segment 13: Landing
- Segment 14: Holding Area Operations (Inbound)
- Segment 15: Holding Area Operations (Outbound)
- \* Segment 16: Takeoff (NOE)

**TARGET SERVICING PHASE (4)**

- Segment 17: Establishment of Battle Position
- Segment 18: Deployment in Battle Area
- Segment 19: Target Handover (Laser Spot Tracker)
- Segment 20: Target Handover, Grid (Missile)
- Segment 21: Target Handover, Grid (Gun, Pilot)
- Segment 22: Target Handover, Grid (Gun, Gunner)
- Segment 23: Target Handover, Grid (Gun, Gunner, Laser Range)
- Segment 24: Target Handover, Grid (FFAR, Pilot)
- Segment 25: Target Handover, Grid (FFAR, Cooperative)
- Segment 26: Acquisition (DTV)
- Segment 27: Acquisition (DTV, Laser Spot Tracker, Manual)
- Segment 28: Acquisition (DTV, Laser Spot Tracker, Automatic)
- Segment 29: Acquisition (DVO)
- Segment 30: Acquisition (DVO, Laser Spot Tracker, Manual)

\*Denotes segment that occurs in more than one mission phase.

**Table A-1 [Continued]**

**TARGET SERVICING PHASE (4) [Continued]**

- Segment 31: Acquisition (DVO, Laser Spot Tracker, Automatic)
- Segment 32: Acquisition (FLIR)
- Segment 33: Acquisition (FLIR, Laser Spot Tracker, Manual)
- Segment 34: Acquisition (FLIR, Laser Spot Tracker, Automatic)
- Segment 35: Engagement, LOAL/Autonomous (Track Target, Manual)
- Segment 36: Engagement, LOAL/Autonomous (Track Target, Image Autotracker)
- Segment 37: Engagement, LOAL/Autonomous (Track Target, Image Autotracker Offset)
- Segment 38: Engagement, LOAL/Remote Designation
- Segment 39: Engagement, LOBL/Autonomous (Track Target, Manual)
- Segment 40: Engagement, LOBL/Autonomous (Track Target, Image Autotracker)
- Segment 41: Engagement, LOBL/Autonomous (Track Target, Image Autotracker Offset)
- Segment 42: Engagement, LOBL/Remote Designation
- Segment 43: Engagement, Gun (Pilot, Normal)
- Segment 44: Engagement, Gun (Gunner, Normal)
- Segment 45: Engagement, Gun (Gunner, Normal, TADS Laser Range)
- Segment 46: Engagement, FFAR (Pilot, Normal)
- Segment 47: Engagement, FFAR (Cooperative, Normal, TADS Laser Range)
- Segment 48: Engagement, LOAL/Rapid Fire
- Segment 49: Engagement, LOAL/Ripple Fire

**FARP OPERATIONS PHASE (5)**

- \* Segment 13: Approach (NOE)
- \* Segment 14: Landing
- Segment 50: FARP Procedures
- \* Segment 09: Takeoff (NOE)

**TERMINAL OPERATIONS PHASE (6)**

- \* Segment 12: Approach (Contour)
- \* Segment 14: Landing

**POSTFLIGHT PHASE (7)**

- Segment 51: Engine Shutdown
- Segment 52: Before Leaving Aircraft

\*Denotes segment that occurs in more than one mission phase.

**Table A-2**

**Optional Engagements Not Included in Analysis**

**MISSILE**

**Gunner:**

LOAL, Rapid, Remote  
LOAL, Rapid, Autonomous, Image Autotrack  
LOAL, Ripple, Autonomous, Image Autotrack  
LOBL, Ripple, Autonomous, Manual Track  
LOBL, Ripple, Autonomous, Image Autotrack  
LOBL, Ripple, Remote  
LOBL, Rapid, Autonomous, Manual Track  
LOBL, Rapid, Autonomous, Image Autotrack  
LOBL, Rapid, Remote

**Pilot:**

LOAL, Remote  
LOBL, Remote

**GUN**

**Gunner:**

Normal, Navigation Range, TADS  
Normal, Navigation Range, IHADSS  
Normal, Laser Range, IHADSS  
Normal, Manual Range, TADS  
Normal, Automatic Range, TADS  
All Options With Gun in Fixed Position

**Pilot:**

Normal, Automatic Range, VDU  
Normal, Manual Range, VDU  
All Options With Gun in Fixed Position

**ROCKET**

**Gunner:**

All Options of Gunner Firing Rockets

**Pilot:**

Normal, Automatic Range, VDU  
Normal, Manual Range, VDU  
All Ground Stow Options

**Table A-2 [Continued]**

**ROCKET [Continued]**

**Cooperative:**

Normal, Laser Range, VDU

Normal, Automatic Range, VDU or IHADSS

Normal, Manual Range, VDU or IHADSS

Normal, Navigation Range, VDU or IHADSS

All Ground Stow Options

**Note:** All multiple weapon engagements were excluded from the analysis.

## **A P P E N D I X   B**

### **ALPHABETICAL LIST OF UNIQUE FUNCTIONS**

NUMBER	FUNCTION
001	Acquire Target (DTV)
002	Acquire Target (DTV, Laser Spot Tracker, Automatic)
003	Acquire Target (DTV, Laser Spot Tracker, Manual)
004	Acquire Target (DVO)
005	Acquire Target (DVO, Laser Spot Tracker, Automatic)
006	Acquire Target (DVO, Laser Spot Tracker, Manual)
007	Acquire Target (FLIR)
008	Acquire Target (FLIR, Laser Spot Tracker, Automatic)
009	Acquire Target (FLIR, Laser Spot Tracker, Manual)
010	Activate Ignition
011	Adjust IHADSS Boresight (Gunner)
012	Adjust IHADSS Boresight (Pilot)
013	Adjust Outfront Boresight
014	Arrange Cockpit (Gunner)
015	Arrange Cockpit (Pilot)
016	Change Battle Position
017	Check Aircraft Systems (Gunner)
018	Check Aircraft Systems (Pilot)
019	Check Area Security (Sensor Search)
020	Check Area Security (Visual Search)
021	Check Armament Subsystems (Gunner)
022	Check Armament Subsystems (Pilot)
023	Check Cockpit Conditions (Gunner)
024	Check Cockpit Conditions (Pilot)
025	Check Collective Switches (Gunner)
026	Check Collective Switches (Pilot)
027	Check Engine 1 ECU Lockout System
028	Check Engine 2 ECU Lockout System
029	Check Engine Chop Circuit
030	Check Fuel Sample
031	Check Helmet (Gunner)
032	Check Helmet (Pilot)
033	Check Instrument Panel (Gunner)
034	Check Instrument Panel (Pilot)
035	Check Left Control Console (Gunner)
036	Check Left Control Console (Pilot)
037	Check Left Side - Fuselage and Nose
038	Check Left Side - Mast
039	Check Left Side - Rear Fuselage
040	Check Left Side - Wing
041	Check Overhead Panel
042	Check Right Control Console (Gunner)
043	Check Right Control Console (Pilot)
044	Check Right Side - Mast

NUMBER	FUNCTION
045	Check Right Side - Rear Fuselage
046	Check Right Side - Under Fuselage
047	Check Right Side - Wing
048	Check Security Devices
049	Complete TAMMS Forms
050	Compute Fuel Burn Rate
051	Conduct Postflight Walk Around
052	Consolidate Forces
053	Coordinate Mission
054	Deactivate APU
055	Designate Target (Autonomous)
056	Designate Target (Image Autotracker Offset)
057	Enter Fire Control Data
058	Enter Target Data
059	Establish Approach
060	Establish Climb
061	Establish Level of Flight
062	Evaluate Position
063	Fire Weapon, Gun (Gunner)
064	Fire Weapon, Gun (Gunner, Laser Range)
065	Fire Weapon, Gun (Pilot)
066	Fire Weapon, Missile
067	Fire Weapon, Missile (LOBL)
068	Fire Weapon, Missile (LOBL Offset)
069	Fire Weapon, Missile, Rapid Fire (LOAL)
070	Fire Weapon, Missile, Ripple Fire (LOAL)
071	Fire Weapon, Rocket
072	Fire Weapon, Rocket (Cooperative)
073	Fly Contour
074	Fly NOE
075	Hover Masked
076	Hover Unmasked
077	Idle Engines
078	Initiate Cockpit Communication (Gunner)
079	Initiate Cockpit Communication (Pilot)
080	Land Aircraft
081	Load Weapons (Rearming)
082	Mask Aircraft
083	Monitor Audio
084	Monitor Threat
085	Perform After Landing Check
086	Perform After Starting APU Check (Gunner)
087	Perform After Starting APU Check (Pilot)
088	Perform Aircraft Position Update



NUMBER	FUNCTION
089	Perform Before Engine Shutdown Check
090	Perform Before Landing Check (Gunner)
091	Perform Before Landing Check (Pilot)
092	Perform Before Starting APU Check (Gunner)
093	Perform Before Starting APU Check (Pilot)
094	Perform Before Starting Engines Check
095	Perform Before Takeoff Check (Gunner)
096	Perform Before Takeoff Check (Pilot)
097	Perform Before Taxi Check
098	Perform Before Taxi Check (FARP)
099	Perform Cockpit Safety Check (Gunner)
100	Perform Cockpit Safety Check (Pilot)
101	Perform Engine 1 Overspeed Test
102	Perform Engine 2 Overspeed Test
103	Perform External Communication (Gunner)
104	Perform External Communication (Pilot)
105	Perform Hover
106	Perform IHADSS Operational Check (Gunner)
107	Perform Navigation
108	Perform PNVIS Operational Check
109	Perform Postflight Cockpit Check (Gunner)
110	Perform Postflight Cockpit Check (Pilot)
111	Perform TADS Operational Checks
112	Perform Target Store Procedures
113	Perform Taxi
114	Perform Taxi Check
115	Place Aircraft in Constraints
116	Plan Mission
117	Prepare Laser Spot Tracker
118	Prepare Performance Planning Card
119	Prepare Weight and Balance Form
120	Program Doppler
121	Program Transponder
122	Receive External Communication (Gunner)
123	Receive External Communication (Pilot)
124	Receive Handover
125	Refuel Aircraft
126	Respond to Threat
127	Restart Engine
128	Secure Aircraft
129	Secure Weapons Systems (Gunner)
130	Secure Weapons Systems (Pilot)
131	Select Firing Position
132	Select Sensor (DTV)

NUMBER	FUNCTION
133	Select Sensor (DVO)
134	Select Sensor (FLIR)
135	Select Weapon, FFAR (Cooperative)
136	Select Weapon, FFAR (Pilot)
137	Select Weapon, Gun (Gunner)
138	Select Weapon, Gun (Gunner, Laser Range)
139	Select Weapon, Gun (Pilot)
140	Select Weapon, Missile
141	Select Weapon, Missile (Remote Designation)
142	Set TADS Internal Boresight (DTV)
143	Set TADS Internal Boresight (DVO)
144	Set TADS Internal Boresight (FLIR)
145	Shut Down Engines
146	Start APU (Postflight)
147	Start APU (Preflight)
148	Start First Engine
149	Start Second Engine
150	Track Target (IHADSS/Gunner)
151	Track Target (IHADSS/Pilot)
152	Track Target (Image Autotracker)
153	Track Target (Image Autotracker Offset)
154	Track Target (Manual)
155	Transmit Message (Attack Coordination)
156	Unmask Aircraft
157	Update Doppler (Landmark)
158	Update Doppler (Stored Destination)
159	Verify Remote Lock-On

**A P P E N D I X C**

**OUTLINE OF AH-64 MISSION SEGMENTS AND FUNCTIONS**

## **PREFLIGHT**

### **1. Flight Planning**

- Plan Mission
- Prepare Weight and Balance Form
- Prepare Performance Planning Card

### **2. Exterior Cockpit Check**

- Check Security Devices
- Perform Cockpit Safety Check (Pilot)
- Perform Cockpit Safety Check (Gunner)
- Check Armament Subsystems (Pilot)
- Check Armament Subsystems (Gunner)
- Activate Ignition
- Check Cockpit Conditions (Pilot)
- Check Cockpit Conditions (Gunner)

### **3. Preflight Walk Around**

- Check Fuel Sample
- Check Right Side - Under Fuselage
- Check Right Side - Mast
- Check Right Side - Wing
- Check Right Side - Rear Fuselage
- Check Left Side - Rear Fuselage
- Check Left Side - Wing
- Check Left Side - Mast
- Check Left Side - Fuselage and Nose

### **4. Interior Cockpit Check**

- Arrange Cockpit (Pilot)
- Arrange Cockpit (Gunner)
- Check Overhead Panel
- Check Collective Switches (Pilot)
- Check Collective Switches (Gunner)
- Check Left Control Console (Pilot)
- Check Left Control Console (Gunner)
- Check Instrument Panel (Pilot)
- Check Instrument Panel (Gunner)
- Check Right Control Console (Pilot)
- Check Right Control Console (Gunner)
- Check Helmet (Pilot)
- Check Helmet (Gunner)

## **PREFLIGHT [Continued]**

### **5. Starting APU**

- Perform Before Starting APU Check (Pilot)
- Perform Before Starting APU Check (Gunner)
- Start APU (Preflight)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **6. After Starting APU**

- Perform After Starting APU Check (Pilot)
- Perform After Starting APU Check (Gunner)
- Enter Fire Control Data
- Adjust IHADSS Boresight (Gunner)
- Perform TADS Operational Check
- Program Doppler
- Program Transponder
- Set TADS Internal Boresight (DTV)
- Set TADS Internal Boresight (FLIR)
- Set TADS Internal Boresight (DVO)
- Perform IHADSS Operational Check (Gunner)
- Perform Before Starting Engines Check
- Start First Engine
- Start Second Engine
- Check Engine Chop Circuit
- Perform Engine 1 Overspeed Test
- Perform Engine 2 Overspeed Test
- Check Engine 1 ECU Lockout System
- Check Engine 2 ECU Lockout System
- Deactivate APU
- Adjust IHADSS Boresight (Pilot)
- Perform PNVS Operational Check
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **DEPARTURE**

### **7. Taxi**

- Perform Before Taxi Check
- Perform External Communication (Pilot)
- Perform Taxi

## **DEPARTURE [Continued]**

### **7. Taxi [Continued]**

- Perform Taxi Check
- Adjust Outfront Boresight
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **8. Takeoff (Contour)**

- Perform Hover
- Perform Before Takeoff Check (Pilot)
- Perform Before Takeoff Check (Gunner)
- Perform External Communication (Gunner)
- Establish Climb
- Establish Level of Flight
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **ENROUTE**

### **9. Contour Flight**

- Fly Contour
- Perform Navigation
- Perform External Communication (Gunner)
- Monitor Threat
- Perform External Communication (Pilot)
- Respond to Threat
- Receive External Communication (Gunner)
- Check Aircraft Systems (Pilot)
- Check Aircraft Systems (Gunner)
- Update Doppler (Stored Destination)
- Update Doppler (Landmark)
- Compute Fuel Burn Rate
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **10. NOE Flight**

- Fly NOE
- Perform Navigation
- Monitor Threat

## **ENROUTE [Continued]**

### **10. NOE Flight [Continued]**

- Respond to Threat
- Check Aircraft Systems (Pilot)
- Check Aircraft Systems (Gunner)
- Update Doppler (Stored Destination)
- Update Doppler (Landmark)
- Perform Aircraft Position Update
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **11. Approach (Contour)**

- Fly Contour
- Perform External Communication (Gunner)
- Perform Before Landing Check (Pilot)
- Perform Before Landing Check (Gunner)
- Establish Approach
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **12. Approach (NOE)**

- Fly NOE
- Perform External Communication (Gunner)
- Perform Before Landing Check (Pilot)
- Perform Before Landing Check (Gunner)
- Establish Approach
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **13. Landing**

- Perform Hover
- Land Aircraft
- Perform External Communication (Pilot)
- Perform After Landing Check
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **ENROUTE [Continued]**

### **14. Holding Area Operations (Inbound)**

- Check Area Security (Sensor Search)
- Check Area Security (Visual Search)
- Coordinate Mission
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **15. Holding Area Operations (Outbound)**

- Check Area Security (Sensor Search)
- Check Area Security (Visual Search)
- Consolidate Forces
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **16. Takeoff (NOE)**

- Perform Hover
- Perform Before Takeoff Check (Pilot)
- Perform Before Takeoff Check (Gunner)
- Perform External Communication (Gunner)
- Establish Climb
- Establish Level of Flight
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **TARGET SERVICING**

### **17. Establishment of Battle Position**

- Hover Masked
- Monitor Threat
- Evaluate Position
- Select Firing Position
- Check Aircraft Systems (Pilot)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)



## **TARGET SERVICING [Continued]**

### **18. Deployment in Battle Area**

- Hover Masked
- Monitor Threat
- Receive Handover
- Change Battle Position
- Hover Masked
- Evaluate Position
- Select Firing Position
- Check Aircraft Systems (Pilot)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **19. Target Handover (Laser Spot Tracker)**

- Hover Masked
- Receive Handover
- Prepare Laser Spot Tracker
- Select Weapon, Missile (Remote Designation)
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **20. Target Handover, Grid (Missile)**

- Hover Masked
- Receive Handover
- Enter Target Data
- Select Weapon, Missile
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **21. Target Handover, Grid (Gun, Pilot)**

- Hover Masked
- Receive Handover
- Enter Target Data
- Select Weapon, Gun (Pilot)
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Monitor Audio

## **TARGET SERVICING [Continued]**

### **21. Target Handover, Grid (Gun, Pilot) [Continued]**

- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **22. Target Handover, Grid (Gun, Gunner)**

- Hover Masked
- Receive Handover
- Enter Target Data
- Select Weapon, Gun (Gunner)
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **23. Target Handover, Grid (Gun, Gunner, Laser Range)**

- Hover Masked
- Receive Handover
- Enter Target Data
- Select Weapon, Gun (Gunner, Laser Range)
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **24. Target Handover, Grid (FFAR, Pilot)**

- Hover Masked
- Receive Handover
- Enter Target Data
- Select Weapon, FFAR (Pilot)
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **25. Target Handover, Grid (FFAR, Cooperative)**

- Hover Masked
- Receive Handover
- Enter Target Data
- Select Weapon, FFAR (Cooperative)
- Monitor Threat

## **TARGET SERVICING [Continued]**

### **25. Target Handover, Grid (FFAR, Cooperative) [Continued]**

- Check Aircraft Systems (Pilot)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **26. Acquisition (DTV)**

- Select Sensor (DTV)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (DTV)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Gunner)

### **27. Acquisition (DTV, Laser Spot Tracker, Manual)**

- Select Sensor (DTV)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (DTV, Laser Spot Tracker, Manual)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **28. Acquisition (DTV, Laser Spot Tracker, Automatic)**

- Select Sensor (DTV)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (DTV, Laser Spot Tracker, Automatic)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **TARGET SERVICING [Continued]**

### **29. Acquisition (DVO)**

- Select Sensor (DVO)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (DVO)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Gunner)

### **30. Acquisition (DVO, Laser Spot Tracker, Manual)**

- Select Sensor (DVO)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (DVO, Laser Spot Tracker, Manual)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Gunner)

### **31. Acquisition (DVO, Laser Spot Tracker, Automatic)**

- Select Sensor (DVO)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (DVO, Laser Spot Tracker, Automatic)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Gunner)

### **32. Acquisition (FLIR)**

- Select Sensor (FLIR)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (FLIR)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Gunner)

## **TARGET SERVICING [Continued]**

### **33. Acquisition (FLIR, Laser Spot Tracker, Manual)**

- Select Sensor (FLIR)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (FLIR, Laser Spot Tracker, Manual)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Gunner)

### **34. Acquisition (FLIR, Laser Spot Tracker, Automatic)**

- Select Sensor (FLIR)
- Unmask Aircraft
- Hover Unmasked
- Monitor Threat
- Check Aircraft Systems (Pilot)
- Acquire Target (FLIR, Laser Spot Tracker, Automatic)
- Perform Target Store Procedures
- Monitor Audio
- Initiate Cockpit Communication (Gunner)

### **35. Engagement, LOAL/Autonomous (Track Target, Manual)**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (Manual)
- Fire Weapon, Missile
- Designate Target (Autonomous)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **36. Engagement, LOAL/Autonomous (Track Target, Image Autotracker)**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (Image Autotracker)
- Fire Weapon, Missile
- Designate Target (Autonomous)
- Mask Aircraft
- Monitor Threat
- Monitor Audio

## **TARGET SERVICING [Continued]**

### **36. Engagement, LOAL/Autonomous (Track Target, Image Autotracker) [Continued]**

- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **37. Engagement, LOAL/Autonomous (Track Target, Image Autotracker Offset)**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (Image Autotracker Offset)
- Fire Weapon, Missile
- Designate Target (Autonomous)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Check Aircraft Systems (Pilot)
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **38. Engagement, LOAL/Remote Designation**

- Place Aircraft in Constraints
- Hover Unmasked
- Fire Weapon, Missile
- Transmit Message (Attack Coordination)
- Mask Aircraft
- Hover Masked
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **39. Engagement, LOBL/Autonomous (Track Target, Manual)**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (Manual)
- Fire Weapon, Missile (LOBL)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **TARGET SERVICING [Continued]**

### **40. Engagement, LOBL/Autonomous (Track Target, Image Autotracker)**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (Image Autotracker)
- Fire Weapon, Missile (LOBL)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **41. Engagement, LOBL/Autonomous (Track Target, Image Autotracker Offset)**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (Image Autotracker Offset)
- Fire Weapon, Missile (LOBL Offset)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **42. Engagement, LOBL/Remote Designation**

- Hover Unmasked
- Transmit Message (Attack Coordination)
- Verify Remote Lock-On
- Place Aircraft in Constraints
- Fire Weapon, Missile
- Transmit Message (Attack Coordination)
- Mask Aircraft
- Monitor Threat
- Monitor Audio

### **43. Engagement, Gun (Pilot, Normal)**

- Hover Unmasked
- Track Target (IHADSS/Pilot)
- Fire Weapon, Gun (Pilot)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **TARGET SERVICING [Continued]**

### **44. Engagement, Gun (Gunner, Normal)**

- Hover Unmasked
- Track Target (IHADSS/Gunner)
- Fire Weapon, Gun (Gunner)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **45. Engagement, Gun (Gunner, Normal, TADS Laser Range)**

- Hover Unmasked
- Track Target (Image Autotracker)
- Fire Weapon, Gun (Gunner, Laser Range)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **46. Engagement, FFAR (Pilot, Normal)**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (IHADSS/Pilot)
- Fire Weapon, Rocket
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Check Aircraft Systems (Gunner)
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **47. Engagement, FFAR (Cooperative, Normal, TADS Laser Range)**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (IHADSS/Pilot)
- Fire Weapon, Rocket (Cooperative)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)



## **TARGET SERVICING [Continued]**

### **48. Engagement, LOAL/Rapid Fire**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (Manual)
- Fire Weapon, Missile, Rapid Fire (LOAL)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Check Aircraft Systems (Pilot)
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **49. Engagement, LOAL/Ripple Fire**

- Place Aircraft in Constraints
- Hover Unmasked
- Track Target (Manual)
- Transmit Message (Attack Coordination)
- Fire Weapon, Missile, Ripple Fire (LOAL)
- Mask Aircraft
- Monitor Threat
- Monitor Audio
- Check Aircraft Systems (Pilot)
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **FORWARD AREA ARMING AND REFUELING POINT (FARP) OPERATIONS**

### **12. Approach (NOE)**

- Perform External Communication (Gunner)
- Perform Before Landing Check (Pilot)
- Perform Before Landing Check (Gunner)
- Establish Approach
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **13. Landing**

- Perform Hover
- Land Aircraft
- Perform External Communication (Pilot)
- Perform After Landing Check

**FORWARD AREA ARMING AND REFUELING POINT (FARP) OPERATIONS**  
**[Continued]**

**13. Landing [Continued]**

- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

**50. FARP Procedures**

- Idle Engines
- Refuel Aircraft
- Restart Engine
- Perform Before Taxi Check (FARP)
- Perform Taxi
- Load Weapons (Rearming)
- Perform Before Taxi Check (FARP)
- Perform Taxi
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

**16. Takeoff (NOE)**

- Perform Hover
- Perform Before Takeoff Check (Pilot)
- Perform Before Takeoff Check (Gunner)
- Perform External Communication (Pilot)
- Establish Climb
- Establish Level of Flight
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

**TERMINAL OPERATIONS**

**11. Approach (Contour)**

- Perform External Communication (Pilot)
- Perform Before Landing Check (Pilot)
- Perform Before Landing Check (Gunner)
- Establish Approach
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **TERMINAL OPERATIONS [Continued]**

### **13. Landing**

- Perform Hover
- Land Aircraft
- Perform External Communication (Pilot)
- Perform After Landing Check
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

## **POSTFLIGHT**

### **51. Engine Shutdown**

- Perform Before Engine Shutdown Check
- Start APU (Postflight)
- Secure Weapons Systems (Pilot)
- Secure Weapons Systems (Gunner)
- Shut Down Engines
- Perform Postflight Cockpit Check (Pilot)
- Perform Postflight Cockpit Check (Gunner)
- Monitor Audio
- Initiate Cockpit Communication (Pilot)
- Initiate Cockpit Communication (Gunner)

### **52. Before Leaving Aircraft**

- Conduct Postflight Walk Around
- Complete TAMMS Forms
- Secure Aircraft

**A P P E N D I X   D**

**ALPHABETICAL LIST OF UNIQUE TASKS**

<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
001	Set	Accelerometer
002	Note	Acknowledgment
003	Transmit	Acknowledgment
004	Check	ACM Switch
005	Set	ACM Switch
006	Check	ACQ SEL Switch (G)
007	Set	ACQ SEL Switch (G)
008	Check	ACQ SEL Switch (P)
009	Set	ACQ SEL Switch (P)
010	Check	ADF Control Switch
011	Set	ADF Control Switch
012	Check	ADF Operation
013	Check	ADSS Switch
014	Set	ADSS Switch
015	Check	Aft Gravity Fuel Cap
016	Check	Aft Stowage Bay
017	Check	Aft Tailboom
018	Check	Air Data Sensor
019	Stabilize	Aircraft
020	Maneuver	Aircraft Across Landmark
021	Check	Aircraft Covers
022	Position	Aircraft in Constraints
023	Position	Aircraft Into Wind
024	Check	Aircraft Location (G)
025	Verify	Aircraft Location (G)
026	Check	Aircraft Location (P)
027	Transmit	Aircraft Status
028	Survey	Aircraft Surroundings (G)
029	Survey	Aircraft Surroundings (P)
030	Position	Aircraft Toward Target
031	Control	Airspeed
032	Check	Airspeed Indicator
033	Change	Airspeed Quickly
034	Set	Altimeter
035	Adjust	Altitude
036	Control	Altitude
037	Increase	Altitude
038	Change	Altitude Sharply
039	Check	Ammunition Bay Access

Note: Certain tasks were added after the preliminary analysis was conducted. These tasks appear at the end of the task list, and consequently, are not in alphabetical order within the list.

TASK NUMBER	VERB	OBJECT
040	Set	AN/APR 39
041	Check	AND Display (Laser Code)
042	Check	AND Display (LMC)
043	Check	AND Display (Missile)
044	Check	AND Display (Offset)
045	Check	AND Display (Polarity)
046	Check	AND Display (Priority)
047	Check	AND Display (Search)
048	Check	AND Display (Tracking)
049	Check	Anticollision Light Switch
050	Check	Anti-ice Control Switch
051	Check	Anti-ice Test Switch
052	Initialize	APU
053	Check	APU Control Switch
054	Set	APU Control Switch
055	Check	APU Exhaust
056	Check	APU FAIL Light
057	Check	APU Fire Handle
058	Check	APU Oil Access Door
059	Check	APU Oil Level
060	Check	APU ON Light
061	Check	APU Starting
062	Check	Area Clear
063	Verify	Area Secure (G)
064	Set	ATTD/Hover Hold Switch
065	Control	Attitude
066	Monitor	Audio
067	Check	Auxiliary Vent Handle
068	Check	Avionics Bay
069	Check	Avionics Bay Door
070	Adjust	Azimuth
071	Check	Backdrop (G)
072	Check	Backdrop (P)
073	Determine	Basic Weight and Moment
074	Check	BAT OVRD Switch
075	Check	BATT/EXT PWR Switch
076	Set	BATT/EXT PWR Switch
077	Check	Battle Area Access (G)
078	Check	Battle Area Access (P)

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<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
079	Receive	Battlefield Intelligence
080	Transmit	Battlefield Intelligence
081	Check	Belly Antennas
082	Check	Blade and Pitch Link
083	Check	Blade Anti-ice Fail Light
084	Verify	Boresight (Internal)
085	Detect	Boresight Target
086	Set	BRSIT Enable Switch
087	Check	BRSIT HMD/Polarity Switch
088	Check	BRU
089	Adjust	BRU Intensity
090	Check	Canopy
091	Check	Canopy Defogger Switch
092	Check	Canopy Door
093	Position	Canopy Door
094	Check	Canopy Door Advisory Light
095	Check	Canopy Glass
096	Check	Canopy Heater Switch
097	Check	CANOPY JETT Pin
098	Position	CANOPY JETT Pin
099	Check	Caution/Warning Panel Lights
100	Set	Chaff Burst Count
101	Set	Chaff Burst Interval
102	Set	Chaff Counter
103	Check	Chaff Dispenser ARM Switch
104	Set	Chaff Dispenser ARM Switch
105	Set	Chaff Dispenser Control Switch
106	Set	Chaff Salvo Count
107	Set	Chaff Salvo Interval
108	Set	CHAN SEL Switch
109	Check	Chocks and External ICS Cords
110	Check	Circuit Breakers (G)
111	Check	Circuit Breakers (P)
112	Set	CKT A and CKT B Switches - ENG 1
113	Set	CKT A and CKT B Switches - ENG 2
114	Set	CKT A Switch - ENG 1
115	Set	CKT A Switch - ENG 2
116	Set	CKT B Switch - ENG 1
117	Set	CKT B Switch - ENG 2

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TASK NUMBER	VERB	OBJECT
118	Set	Clock
119	Adjust	Collective
120	Decrease	Collective
121	Set	Collective Friction
122	Set	COMM Control Panel Volume Switch
123	Receive	Cockpit Communication
124	Transmit	Cockpit Communication
125	Check	Concealment (G)
126	Check	Concealment (P)
127	Check	Control Sweep and Force Trim System/Cyclic
128	Check	Control Sweep and Force Trim System/Pedals
129	Check	Control System/Collective
130	Follow	Course
131	Check	CPG ARM Switch
132	Set	CPG ARM Switch
133	Brief	Crew
134	Determine	Cruise VNE
135	Set	Cyclic WAS Switch
136	Check	DASE Caution Light
137	Set	DASE Pitch Switch
138	Set	DASE Release Switch
139	Set	DASE Roll Switch
140	Set	DASE Yaw Switch
141	Check	DEK Data Entry Selector Switch
142	Set	DEK Data Entry Selector Switch
143	Enter	DEK LASER Codes
144	Enter	DEK Magnetic Variation
145	Enter	DEK Range Data
146	Enter	DEK Spheroid Data
147	Set	DEST DISP Thumbwheel
148	Check	Direction Display
149	Press	Doppler Data Entry Key
150	Check	Doppler Display
151	Monitor	Doppler Display
152	Set	Doppler Display Selector Switch
153	Press	Doppler KYBD Key
154	Enter	Doppler Magnetic Variation
155	Check	Doppler Mode Switch
156	Set	Doppler Mode Switch

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<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
157	Check	Doppler Panel Lights
158	Enter	Doppler Spheroid Data
159	Enter	Doppler Zone Data
160	Control	Drift
161	Adjust	DVO Crosshairs Alignment
162	Check	EDGE LT PNL Switch
163	Select	Egress Routes (G)
164	Select	Egress Routes (P)
165	Check	ELEC SYS FAIL Warning Light
166	Adjust	Elevation
167	Check	EMER HYD PWR Switch (G)
168	Check	EMER HYD PWR Switch (P)
169	Check	Empennage
170	Check	ENCU Switch
171	Check	ENG 1 Anti-ice Warning Light
172	Set	ENG 1 Fuel Switch
173	Check	ENG 1 Instruments and Lights
174	Check	ENG 1 NG
175	Monitor	ENG 1 NG
176	Check	ENG 1 NP
177	Check	ENG 1 NP/NG/NR
178	Monitor	ENG 1 OIL Pressure
179	Check	ENG 1 OUT Light
180	Adjust	ENG 1 PWR Lever
181	Check	ENG 1 PWR Lever
182	Set	ENG 1 PWR Lever
183	Check	ENG 1 START Switch
184	Set	ENG 1 START Switch
185	Check	ENG 1 TGT
186	Check	ENG 1 Warning Light
187	Check	ENG 2 Anti-ice Warning Light
188	Set	ENG 2 Fuel Switch
189	Check	ENG 2 Instruments and Lights
190	Check	ENG 2 NG
191	Monitor	ENG 2 NG
192	Check	ENG 2 NP
193	Check	ENG 2 NP/NG/NR
194	Monitor	ENG 2 OIL Pressure
— 195	Check	ENG 2 OUT Light

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<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
196	Adjust	ENG 2 PWR Lever
197	Set	ENG 2 PWR Lever
198	Check	ENG 2 START Switch
199	Set	ENG 2 START Switch
200	Check	ENG 2 TGT
201	Check	ENG 2 Warning Light
202	Check	ENG Anti-ice Warning Light
203	Check	ENG CHOP Light
204	Check	ENG INLET Anti-ice Switch
205	Check	ENG Out Audio
206	Position	Engine Cowling
207	Check	Engine Fire Handles
208	Check	Engine Inlet
209	Check	Engine Instrument Lights (G)
210	Check	Engine Instrument Lights (P)
211	Check	Engine Instruments
212	Check	Engine Instruments (Condition)
213	Monitor	Engine Instruments (P)
214	Set	Engine Instruments Test Switch (G)
215	Set	Engine Instruments Test Switch (P)
216	Check	Engine Oil Level
217	Check	Equipment Stowage Compartment
218	Determine	Estimated Landing Gross Weight
219	Check	EXT TK Fuel Switch
220	Position	External Canopy Pin
221	Check	External Power Receptacle
222	Set	FAN Switch
223	Check	FC SYM GEN Switch
224	Set	FC SYM GEN Switch
225	Check	FCC/MUX Switch
226	Check	FDLS Results
227	Detect	Feature
228	Track	Feature
229	Check	Feed Chute
230	Enter	Field Elevation
231	Select	Field of Fire (G)
232	Select	Field of Fire (P)
233	Check	Fire Detector Lights
234	Set	Fire Detector Test Switch (Position 1)

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TASK NUMBER	VERB	OBJECT
235	Set	Fire Detector Test Switch (Position 2)
236	Check	Fire Extinguisher
237	Check	Fire Extinguisher Disc
238	Alert	Fireguard
239	Verify	Firing Constraints
240	Check	First Aid Kit
241	Record	Flight Hours
242	Check	Flight Instruments
243	Check	Flight Mode Symbolology Switch
244	Set	Flight Mode Symbolology Switch
245	Complete	Flight Plan (175)
246	Adjust	FLIR Level/Gain
247	Set	FLIR Polarity Reversal Switch
248	Check	Floodlight Switch
249	Set	FLY-TO-DEST Switch
250	Check	Formation Light Switch
251	Check	Forward Gravity Fuel Cap
252	Control	Forward Motion
253	Set	FOV Switch
254	Evaluate	FOVs (DTV): W, N, Z
255	Evaluate	FOVs (DVO): W, N
256	Evaluate	FOVs (FLIR): W, M, N, Z
257	Determine	Free Air Temperature (Arrival)
258	Determine	Free Air Temperature (Cruise)
259	Determine	Free Air Temperature (Departure)
260	Check	Fuel BOOST Switch
261	Check	Fuel Caps
262	Check	Fuel CROSSFEED Switch
263	Check	Fuel Filter Buttons
264	Check	Fuel ORIDE Switch
265	Check	FUEL PSI ENG 1 Warning Light
266	Check	FUEL PSI ENG 2 Warning Light
267	Check	Fuel Quantity Indicator (External)
268	Check	Fuel Quantity Indicator (Internal)
269	Collect	Fuel Sample
270	Inspect	Fuel Sample
271	Check	Fuel TK SEL Switch
272	Check	Fuel TRANS Switch
273	Check	GEN 1 Switch

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TASK NUMBER	VERB	OBJECT
274	Set	GEN 1 Switch
275	Check	GEN 1/RECT 1 Warning Light
276	Check	GEN 2 Switch
277	Set	GEN 2 Switch
278	Check	GEN 2/RECT 2 Warning Light
279	Check	Generator Lights
280	Determine	Go/No-Go Torques (IGE)
281	Determine	Go/No-Go Torques (OGE)
282	Enter	Grid Convergence
283	Check	Grounding Cables
284	Set	GS Switch
285	Set	Gun Bury Limits
286	Check	Gun Mounting
287	Check	GUN SEL Switch
288	Set	GUN SEL Switch
289	Check	HAD Message (Gun)
290	Check	HAD Message (Missile)
291	Check	HAD Message (Mode)
292	Check	HAD Message (Range)
293	Check	HAD Message (Rocket)
294	Check	HAD Message (Rounds)
295	Check	HAD Message (TOF)
296	Monitor	HAD Message (TOF)
295	Check	HAD Message (TOF)
296	Monitor	HAD Message (TOF)
297	Check	HAD Message (Tracking)
298	Verify	HAD Message (Tracking)
299	Perform	Hard Turns
300	Check	HARS Alignment
301	Check	HARS Control Switch
302	Set	HARS Control Switch
303	Set	HDD Switch
304	Adjust	Heading
305	Control	Heading
306	Check	HELLFIRE Electrical Connector
307	Check	HELLFIRE Launcher ARM/SAFE Switch
308	Check	HELLFIRE Launcher Mounting
309	Check	HELLFIRE Missile Installation
310	Connect	Helmet

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<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
311	Disconnect	Helmet
312	Don	Helmet
313	Remove	Helmet
314	Set	HMD BRSIT Switch
315	Align	HMD Reticle
316	Check	Horizontal Situation Indicator (HSI) Knobs
317	Determine	Hover Torque (Arrival) (IGE)
318	Determine	Hover Torque (Arrival) (OGE)
319	Determine	Hover Torque (OGE)
320	Set	IAT OFS Switch
321	Check	IAT Polarity Switch
322	Set	IAT Polarity Switch
323	Set	IAT Switch
324	Set	ICS Switch
325	Check	ICS System (G)
326	Check	ICS System (P)
327	Insert	Ignition Key
328	Remove	Ignition Key
329	Turn	Ignition Key
330	Position	IHADSS
331	Check	IHADSS BRSIT Switch
332	Set	IHADSS BRSIT Switch
333	Adjust	IHADSS Display Brightness/Contrast (G)
334	Adjust	IHADSS Display Brightness/Contrast (P)
335	Align	IHADSS LOS Reticle on Target
336	Check	IHADSS Switch
337	Set	IHADSS Switch
338	Adjust	IHADSS Symbol Brightness/Gain/Level (G)
339	Adjust	IHADSS Symbol Brightness/Gain/Level (P)
340	Check	Image and Turret Function
341	Determine	Indicated Airspeed (Cruise) (Dual Engine)
342	Determine	Indicated Airspeed (Cruise) (Single Engine)
343	Check	Inertial Reel Lock
344	Check	Infrared Jamming Control Switch
345	Set	Infrared Jamming Control Switch
346	Select	Ingress Routes (G)
347	Select	Ingress Routes (P)
348	Check	INST Light Switch
349	Set	INST Light Switch

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<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
350	Adjust	INST Lights
351	Set	Instrument Test Panel Brightness
352	Set	Instrument Test Panel Light Switch
353	Check	IR Suppressor/Engine Exhaust
354	Check	KY28 Power Switch
355	Set	KY28 Power Switch
356	Check	KY58 Power Switch
357	Set	KY58 Power Switch
358	Set	L CSL Light Switch
359	Determine	Landing Center of Gravity
360	Determine	Landing Weight and Moment
361	Pull	Laser Trigger
362	Release	Laser Trigger
363	Inspect	Left Side of Aircraft
364	Press	LMC Button
365	Check	Locking Devices
366	Check	Loose Equipment
367	Check	LOS Slave Status
368	Check	LOW RPM ROTOR Light
369	Check	LRF/D CCM Switch
370	Check	LRF/D CODE
371	Set	LRF/D Code Indicator
372	Check	LSR MSL CCM Switch
373	Check	LSR SEL Switch
374	Set	LSR SEL Switch
375	Set	LST Code Switch
376	Check	LT Switch
377	Set	LT Switch
378	Check	LWR CHAN Laser Code
379	Set	LWR CHAN Laser Code
380	Check	LWR CHAN Quantity
381	Set	LWR CHAN Quantity
382	Check	Magnetic Compass
383	Check	Main and Tail Rotor Anti-ice Switch
384	Check	Main Landing Gear
385	Check	Main Rotor Head and Blades
386	Check	Main Transmission Filter Button
387	Check	Main Transmission Oil
388	Check	MAIN XMSN 1 Warning Light

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<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
389	Check	MAIN XMSN 2 Warning Light
390	Record	Maintenance Requirements
391	Check	MAN STAB Warning Light
392	Manipulate	MAN TKR Thumbwheel
393	Complete	Map Reconnaissance
394	Read	Maps
395	Establish	Masking Profile
396	Check	MASTER ARM Switch
397	Set	MASTER ARM Switch
398	Check	Master CAUTION/WARNING Panel
399	Reset	MASTER CAUTION/WARNING Panel Lights
400	Check	MASTER IGN Switch
401	Determine	Maximum Allowable Gross Weight (Arrival)
402	Determine	Maximum Allowable Gross Weight (IGE)
403	Determine	Maximum Allowable Gross Weight (OGE)
404	Determine	Maximum Range IAS
405	Determine	Maximum Rate of Climb IAS
406	Determine	Maximum Torque Available (Arrival) (Dual Engine)
407	Determine	Maximum Torque Available (Arrival) (Single Engine)
408	Determine	Maximum Torque Available (Departure) (Dual Engine)
409	Determine	Maximum Torque Available (Departure) (Single Engine)
410	Receive	Message
411	Transmit	Message
412	Note	Message Alert
413	Transmit	Message Alert
414	Transmit	Message (Brief)
415	Check	Missile Control Switch
416	Set	Missile Control Switch
417	Verify	Missile Launch
418	Check	Missile Mode Switch
419	Set	Missile Mode Switch
420	Check	Missile Type Switch
421	Receive	Mission
422	Enter	Mission Preplanning Coordinates
423	Receive	Mission Update
424	Check	MSL SEL Switch
425	Set	MSL SEL Switch
426	Check	MUX Switch
427	Check	Nacelle Fire Louvers

Note: Certain tasks were added after the preliminary analysis was conducted. These tasks appear at the end of the task list, and consequently, are not in alphabetical order within the list.

TASK NUMBER	VERB	OBJECT
428	Check	Navigation Light Switch
429	Check	Night Vision Switch
430	Check	Nose Gear Box Cowling
431	Check	Nose Gear Box Filter Button
432	Check	Nose Gear Box Oil
433	Check	Nose Gear Box Oil Cap
434	Check	NP and NG
435	Check	NP and NR
436	Check	OAT Gauge
437	Check	OAT Gauge Extension
438	Check	OAT Temperature
439	Maintain	Obstacle Clearance
440	Check	Obstacles (G)
441	Check	Obstacles (P)
442	Check	Oil Filter Buttons
443	Check	OIL PSI ACC PUMP Warning Light
444	Check	OIL PSI ENG 1 Warning Light
445	Check	OIL PSI ENG 2 Warning Light
446	Check	OIL PSI MAIN XMSN 1 Warning Light
447	Check	OIL PSI MAIN XMSN 2 Warning Light
448	Check	OIL PSI NOSE GRBX 1 Warning Light
449	Check	OIL PSI NOSE GRBX 2 Warning Light
450	Determine	Operating Weight and Moment
451	Set	ORT WAS Switch
452	Enter	Page #2 of SPI
453	Check	Park Brake
454	Release	Park Brake
455	Set	Park Brake
456	Adjust	Pedals
457	Set	PEN-IM Switch
458	Check	Pilot RKT SEL Switch
459	Check	Pitot Tube
460	Check	Pitot Tubes Antiice Switch
461	Check	PLT/GND ORIDE Switch
462	Set	PLT/GND ORIDE Switch
463	Check	PNVS Polarity Reversal
464	Check	PNVS Switch
465	Set	PNVS Switch
466	Adjust	Power

Note: Certain tasks were added after the preliminary analysis was conducted. These tasks appear at the end of the task list, and consequently, are not in alphabetical order within the list.



<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
467	Perform	Power Check
468	Enter	PPOS
469	Determine	Predicted Cruise Torque (Dual Engine)
470	Determine	Predicted Fuel Flow (Dual Engine)
471	Determine	Predicted Hover Torque
472	Determine	Pressure Altitude (Arrival)
473	Determine	Pressure Altitude (Cruise)
474	Determine	Pressure Altitude (Departure)
475	Check	PRI HYD PSI Warning Light
476	Check	Publications
477	Check	Publications/Logbook
478	Check	PWR Levers
479	Set	PWR Levers
480	Check	PWR Levers Travel
481	Check	Pylon Safety Pins
482	Check	Pylons
483	Set	R CSL Light Switch
484	Adjust	RAD ALT Switches
485	Check	RAD ALT Switches
486	Set	RAD ALT Switches
487	Check	Radar Jamming Control Switch
488	Set	Radar Jamming Control Switch
489	Check	Radar Jamming Light
490	Check	Radar Warning Antenna
491	Check	Radio Magnetic Indicator
492	Enter	Range to Boresight Target
493	Control	Rate of Climb
494	Control	Rate of Descent
495	Set	R/CTR CSL Light Switch
496	Inspect	Rear Area of Aircraft
497	Set	Receiver Selector Volume Switches
498	Check	Refuel Valve Open Light
499	Check	Refueling Access Door
500	Check	Refueling Level Control Valves
501	Check	Refueling Valve
502	Check	Remote Attitude Indicator
503	Transmit	Remote Request
504	Check	Remote Transmitter Selector Switch
505	Set	Remote Transmitter Selector Switch

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<b>TASK NUMBER</b>	<b>VERB</b>	<b>OBJECT</b>
506	Adjust	Restraint Harness
507	Check	Restraint Harness
508	Check	Retaining Pins
509	Check	Reticle Alignment on Light Source
510	Maintain	Reticle Alignment on Target
511	Align	Reticle on Feature
512	Check	Reticle on Target
513	Inspect	Right Side of Aircraft
514	Check	RKT SEL Switch
515	Set	RKT SEL Switch
516	Set	RNG-KM Thumbwheel
517	Set	Rocket Firing Quantity
518	Check	Rocket Steering Cursor
519	Verify	Rocket Steering Cursor Aligned
520	Set	Rocket Zone
521	Check	Rocket Zone Inventory
522	Check	Rockets Electrical Connector
523	Check	Rockets Igniter Arms
524	Check	Rockets Installation
525	Check	Rockets Launcher
526	Check	Rockets Launcher Mounting
527	Check	RTR BK Switch
528	Set	RTR BK Switch
529	Check	SAFE/ARM Indicator Light
530	Check	Searchlight
531	Check	Searchlight Switch
532	Check	Seat Cushions
533	Adjust	Seat Position
534	Check	Selectable Digital Display Lights
535	Check	Sensor Select Switch
536	Set	Sensor Select Switch
537	Check	SHAFT DRIVEN COMP Warning Light
538	Check	SIGHT SEL Switch (G)
539	Set	SIGHT SEL Switch (G)
540	Check	SIGHT SEL Switch (P)
541	Set	SIGHT SEL Switch (P)
542	Determine	Single Engine IAS
543	Check	Single Point Fuel Access
544	Set	SLAVE Switch

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TASK NUMBER	VERB	OBJECT
545	Move	Slide Collar on Collective
546	Check	Stabilator
547	Check	Stabilator Manual Control Switch
548	Check	Standby Attitude Indicator
549	Set	Standby Attitude Indicator
550	Check	Standoff Range (G)
551	Check	Standoff Range (P)
552	Monitor	Starter Light
553	Check	Static Ground Cable
554	Check	Static Port
555	Check	STBY FAN Switch
556	Check	STORES JETT Switches
557	Check	Strap Assembly
558	Monitor	TADS AUTO Search
559	Check	TADS BRSIT Switch
560	Set	TADS BRSIT Switch
561	Adjust	TADS Display Brightness/Contrast
562	Check	TADS LRF/D Indicator
563	Check	TADS Switch
564	Set	TADS Switch
565	Check	TADS/PNVS Anti-ice Switch
566	Check	TADS/PNVS Turret
567	Check	Tail Landing Gear
568	Check	Tail Rotor Blades
569	Check	Tail Rotor Controls
570	Check	Tail Rotor Hub
571	Check	Tailwheel Advisory Light
572	Check	TAILWHEEL Switch
573	Set	TAILWHEEL Switch
574	Determine	Takeoff Center of Gravity
575	Determine	Takeoff Fuel Weight
576	Determine	Takeoff Gross Weight
577	Determine	Takeoff Weight and Moment
578	Identify	Target
579	Copy	Target Coordinates
580	Enter	Target Coordinates
581	Enter	Target Index Number
582	Copy	Target Number and Type
583	Follow	Target With IHADSS

Note: Certain tasks were added after the preliminary analysis was conducted. These tasks appear at the end of the task list, and consequently, are not in alphabetical order within the list.

TASK NUMBER	VERB	OBJECT
584	Set	TEMP Switch
585	Check	Terrain Clearance (G)
586	Check	Terrain Clearance (P)
587	Monitor	TGT
588	Set	TGT/NAV Index Code
589	Detect	Threat
590	Check	Tiedowns
591	Monitor	Time (Inflight)
592	Enter	Time into DEK
593	Perform	Touchdown
594	Monitor	Tracking Gates
595	Observe	Tracking Gates
596	Check	Transmission Deck Catwalk Doors
597	Set	Transmitter Selector Switch
598	Check	Transponder Control Switch
599	Set	Transponder Control Switch ,
600	Adjust	Trim
601	Determine	True Airspeed (Cruise)
602	Check	Turn and Slip Indicator
603	Press	U Key on DEK
604	Check	UHF Control Switch
605	Set	UHF Control Switch
606	Set	UHF Frequency Selector Switches
607	Check	UHF Mode Selector Switch
608	Set	UHF Mode Selector Switch
609	Set	UHF Volume Switch
610	Set	UPDT/ST Switch
611	Check	Upper Flight Controls and Swashplate
612	Check	UPR CHAN Laser Code
613	Set	UPR CHAN Laser Code
614	Check	UPR CHAN Quantity
615	Set	UPR CHAN Quantity
616	Check	UTIL HYD PSI Warning Light
617	Check	Utility Hydraulic Accumulator
618	Check	Utility Light
619	Enter	UTM Coordinates
620	Adjust	VDU Brightness/Contrast
621	Check	VDU Control Switch
622	Set	VDU Control Switch

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TASK NUMBER	VERB	OBJECT
623	Check	Vertical Speed Indicator
624	Check	VHF Control Switch
625	Set	VHF Control Switch
626	Set	VHF Frequency Selector Switches
627	Check	VHF Mode Selector Switch
628	Set	VHF Mode Selector Switch
629	Set	VHF Volume Switch
630	Check	VID SEL Switch (G)
631	Set	VID SEL Switch (G)
632	Check	VID SEL Switch (P)
633	Set	VID SEL Switch (P)
634	Check	Video Recorder Control Switch
635	Check	Video Recorder Mode Switch
636	Check	Video Recorder Play Switch
637	Perform	Visual Search
638	Test	Warning and Advisory Lights (MASTER CAUTION WARNING, Caution/Warning, Fire Handle, Advisory)
639	Note	Weapon Impact
640	Check	Weapon Path
641	Monitor	Weapons Loading
642	Transmit	Weapons Status
643	Pull	Weapons Trigger
644	Release	Weapons Trigger
645	Receive	Weather Briefing
646	Determine	Weight of Load
647	Check	Wheel Brakes
648	Check	Windshield Wiper Switch (G)
649	Check	Windshield Wiper Switch (P)
650	Check	Wing
651	Check	Wing Anticollision Light
652	Check	Wing Formation Light
653	Check	Wing Navigation Light
654	Check	Airspeed Indicator (Inflight)
655	Check	Altimeter (Inflight)
656	Set	ANT Switch
657	Verify	Area Secure (P)
658	Set	Brake Lever
659	Compute	Fuel Consumption Rate
660	Note	Fuel Quantity

Note: Certain tasks were added after the preliminary analysis was conducted. These tasks appear at the end of the task list, and consequently, are not in alphabetical order within the list.

TASK NUMBER	VERB	OBJECT
661	Monitor	Fuel Quantity Indicator (Internal)
662	Change	Heading
663	Check	Heading Indicator (Inflight)
664	Set	M-1 Switch
665	Set	M-1 Test Switch
666	Set	M-2 Switch
667	Set	M-2 Test Switch
668	Set	M-3 Switch
669	Set	M-3 Test Switch
670	Set	M-C Switch
671	Set	M-C Test Switch
672	Set	Master Switch
673	Set	Mode 1 Code
674	Set	Mode 3A Code
675	Set	Mode 4 Switch
676	Set	NOE/APPCH Switch
677	Set	Pedal Adjustment Lever
678	Decrease	Power
679	Increase	Power
680	Release	Radio Transmitter Switch
681	Check	Reply Light
682	Check	Test Light
683	Check	Test/MON Light
684	Note	Time
685	Check	Trim Ball (Inflight)
686	Check	Vertical Situation Indicator (Inflight)
687	Call Up	Waypoint
688	Check	% Torque Indicator (Inflight)

**A P P E N D I X   E**

**FUNCTION ANALYSIS WORKSHEETS**

AH-64 FUNCTION ANALYSIS

FUNCTION 001 Acquire Target (DTV)

TOTAL TIME (Approximate)

43 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/ Visually Monitor Sensor Images K-5(R)/V-3(I)	Evaluate Sensory Feedback and Verify Switch Engaged (Images Changing) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	20"
Detect	Feature	G227	Sensor Display (VSD)	Visually Detect Sensor Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Potential Target) C-5			2
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (N), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (Z), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-6(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6			5

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.



AH-64 FUNCTION ANALYSIS

FUNCTION 001 Acquire Target (DTV) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1		
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	.5		

# AH-64 FUNCTION ANALYSIS

FUNCTION 002 Acquire Target (DTV, Laser Spot Tracker, Automatic)

TOTAL TIME (Approximate) 37.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (AUTO) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Check	AND Display (Search)	G047	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST in AUTO Search) C-4			1
Monitor	TADS AUTO Search	G558	Sensor Display (VSD)	Visually Monitor Sensor Display V-3(I)	Interpret Sensory Information and Verify Correct Status (TADS Searching) C-2			20*
Check	AND Display (Tracking)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST Tracking) C-4			1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (Z), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-6(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6			5
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 002 Acquire Target (DTV, Laser Spot Tracker, Automatic) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1		
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	.5		

AH-64 FUNCTION ANALYSIS

FUNCTION 003 Acquire Target (DTV, Laser Spot Tracker, Manual)

TOTAL TIME (Approximate)

36 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2			Rotary - 7 Positions (6 Functional) (R-7)	1
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (MAN) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/Visually Monitor Sensor Images K-5(R)/V-3(I)	Evaluate Sensory Feedback and Verify Switch Engaged (Images Changing) C-2	Manipulate Thumbwheel P-4(R)		Thumbwheel - Rheostat (T-R)	20*
Check	AND Display (Tracking)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST Tracking) C-4				1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (Z), and Verify Image Correct C-3	Move Switch P-1(L)		Springloaded Center Toggle - 4 Positions (SCT-4)	1
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-6(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6				5
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)		Springloaded Trigger (SPTR)	1

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AH-64 FUNCTION ANALYSIS

FUNCTION 003 Acquire Target (DTV, Laser Spot Tracker, Manual) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Release	Laser Trigger		G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)		Springloaded Trigger	.5

AH-64 FUNCTION ANALYSIS

FUNCTION 004 Acquire Target (DVO)

TOTAL TIME (Approximate) 39 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G338	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Manipulate	MAN TXR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/ Visually Monitor Sensor Images K-5(R)/V-3(I)	Evaluate Sensory Feedback and Verify Switch Engaged (Images Changing) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	20'
Detect	Feature	G227	Sensor Display (VSD)	Visually Detect Sensor Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Potential Target) C-5			2
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (N), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-6(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6			5
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	.5

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AH-64 FUNCTION ANALYSIS

FUNCTION 005 Acquire Target (DVO, Laser Spot Tracker, Automatic)

TOTAL TIME (Approximate)

37.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (8 Functional) (R-7)	1
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (AUTO) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Check	AND Display (Search)	G047	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST In AUTO Search) C-4			1
Monitor	TADS AUTO Search	G558	Sensor Display (VSD)	Visually Monitor Sensor Display V-3(I)	Interpret Sensory Information and Verify Correct Status (TADS Searching) C-2			20*
Check	AND Display (Tracking)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST Tracking) C-4			1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(LW-1(I))	Evaluate Position Options, Decide Correct Position (N), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-9(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6			5
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 005 Acquire Target (DVO, Laser Spot Tracker, Automatic) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1		
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Laser Deactivated) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	.5		



AH-64 FUNCTION ANALYSIS

FUNCTION 006 Acquire Target (DVO, Laser Spot Tracker, Manual)

TOTAL TIME (Approximate) 36 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (R-7)	1
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (MAN) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/Visually Monitor Sensor Images K-5(R)/V-3(I)	Evaluate Sensory Feedback and Verify Switch Engaged (Images Changing) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	20*
Check	AND Display (Tracking)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST Tracking) C-4			1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (N), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-6(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6			5
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 006 Acquire Target (DVQ, Laser Spot Tracker, Manual) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHO-MOTOR			
Release	Laser Trigger		G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)		Springloaded Trigger (SPTR)	.

## AH-64 FUNCTION ANALYSIS

FUNCTION 007 Acquire Target (FLIR)

TOTAL TIME (Approximate)

47 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/ Visually Monitor Sensor Images K-5(R)/V-3(I)	Evaluate Sensory Feedback and Verify Switch Engaged (Images Changing) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	20*
Detect	Feature	G227	Sensor Display (VSD)	Visually Detect Sensor Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Potential Target) C-5			2
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (M), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (N), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (Z), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 007 Acquire Target (T-UR) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)		Thumbwheel Rheostat (T-R)	2
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-6(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6				5
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)		Springloaded Trigger (SPTR)	1
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)		Springloaded Trigger (SPTR)	5

AH-64 FUNCTION ANALYSIS

FUNCTION 008 Acquire Target (FLIR, Laser Spot Tracker, Automatic)

TOTAL TIME (Approximate)

37.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (AUTO) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Check	AND Display (Search)	G047	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST In AUTO Search) C-4			1
Monitor	TADS AUTO Search	G558	Sensor Display (VSD)	Visually Monitor Sensor Display V-3(I)	Interpret Sensory Information and Verify Correct Status (TADS Searching) C-2			20*
Check	AND Display (Tracking)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST Tracking) C-4			1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/W-1(I)	Evaluate Position Options, Decide Correct Position (Z), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-6(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6			5
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 008 Acquire Target (FLIR, Laser Spot Tracker, Automatic) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1	
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	.5	

AH-64 FUNCTION ANALYSIS

FUNCTION 009 Acquire Target (FLIR, Laser Spot Tracker, Manual)

TOTAL TIME (Approximate)

36 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (MAN) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/Visually Monitor Sensor Images K-5(R)/W-3(I)	Evaluate Sensory Feedback and Verify Switch Engaged (Images Changing) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	20*
Check	AND Display (Tracking)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LST Tracking) C-4			1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (Z), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-6(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6			5
Set	LT Switch	G377	Sensor Control (VSC)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPT-R)	1

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AH-64 FUNCTION ANALYSIS

FUNCTION 009 Acquire Target (FLIR, Laser Spot Tracker, Manual) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Release	Laser Trigger		G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)		Springloaded Trigger (SPTR)	.5



AH-64 FUNCTION ANALYSIS

FUNCTION 010 Activate Ignition

7 Seconds

TOTAL TIME (Approximate)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Insert	Ignition Key		P327	Electrical (UEL)	Visually Coordinate Hand Movement V-4(I)	Verify Correct Status (In) C-2	Insert Key P-5(L)		Key - 2 Positions (K-2)	4
Turn	Ignition Key		P329	Electrical (UEL)	Visually Coordinate Hand Movement V-4(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Turn Key P-5(L)		Key - 2 Positions (K-2)	2

## AH-64 FUNCTION ANALYSIS

FUNCTION 011 Adjust IHADSS Borelight (Gunner)

TOTAL TIME (Approximate) 32 Seconds

TASKS		WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR	
Set	SIGHT SEL Switch (G)	G539	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (HMD/TADS) C-3	Turn Switch P-2(L)	2
Set	IHADSS BRSIT Switch	G332	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	1
Adjust	BRU Intensity	G089	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switch P-2(L)	4
Align	HMD Reticle	G315	Sensor Display (VSD)	Visually Align Feature V-4(I)	Evaluate Sensory Feedback and Verify Correct Status (Reticle Aligned) C-2	Move Head P-4(H)	4
Set	HMD BRSIT Switch	G314	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Alt) C-3	Move Switch P-1(L)	1
Set	IHADSS BRSIT Switch	G332	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	1
Adjust	INST Lights	G350	Lighting (UL)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switch P-2(L)	2
Set	GS Switch	G284	Sensor Display (VSD)	Visually Register Light V-1(I)	Decide and Verify Correct Position (GS On) C-3	Move Switch P-1(L)	1
Adjust	IHADSS Display Brightness/Contrast (G)	G333	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Move Switches P-1(R)	10

# AH-64 FUNCTION ANALYSIS

## FUNCTION 011 Adjust HADSS Borelight (Gunner) [Continued]

TASKS				WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	VID SEL Switch (G)	G631	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(l)	Evaluate Position Options and Deduce Correct Position (TADS) C-3	Move Switch P-1(L)	Toggle - 3 Positions (2 Functional) (T-3)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 012 Adjust IHADSS Boreight (Pilot)

TOTAL TIME (Approximate) 17.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	SIGHT SEL Switch (P)	P541	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (HMD) C-3	Turn Switch P-2(L)		Rotary - 3 Positions (R-3)	1
Set	IHADSS BRSIT Switch	P332	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)		Toggle - 2 Positions (T-2)	1
Adjust	BRU Intensity	P089	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switch P-2(L)		Rotary - Rheostat (R-R)	4
Align	HMD Reticle	P315	Sensor Display (VSD)	Visually Align Feature V-4(I)	Evaluate Sensory Feedback and Verify Correct Status (Reticle Aligned) C-2	Move Head P-4(H)			4
Set	HMD BRSIT Switch	P314	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Alt) C-3	Move Switch P-1(L)		Springloaded Center Toggle - 3 Positions (SCT-3)	1
Set	IHADSS BRSIT Switch	P332	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)		Toggle - 2 Positions (T-2)	1
Adjust	INST Lights	P350	Lighting (UL)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switch P-2(L)		Rotary - Rheostat (R-R)	2

AH-64 FUNCTION ANALYSIS

FUNCTION 013 Adjust Outfront Boresight

TOTAL TIME (Approximate)

178 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Position	Aircraft Toward Target	P030	Flight Control (FC)	Feel Control Movement/ Visually Orient Aircraft K-4(FYV-4(E)	Make Conditioned Association (Position Correct) C-1	Control Pressure P-4(F)		120*
Enter	Range - to Boresight Target	G492	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct (Range) C-4	Type Entry P-7(L)	Springloaded Press - Alphanumeric Functions (SP-AN)	11
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(LYV-1(I)	Evaluate Position Options, Decide Correct Position (FLIR), and Verify Correct Image C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(LYV-1(I)	Evaluate Position Options, Decide Correct Position (N), and Verify Correct Image C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Detect	Boresight Target	G085	Sensor Display (VSD)	Visually Detect Sensor Image V-1(I)	Verify Target Present C-2	Turn Switches P-2(L)	2 Rotary - Rheostat (R-R)	2
Adjust	FLIR Level/Gain	G246	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3			4
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(LYV-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Gate Tracking) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(LYV-1(I)	Evaluate Position Options, Decide Correct Position (DTV), and Verify Correct Image C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1

\*The reported time represents an estimate of the average amount of time required to align the aircraft with the target; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 013 Adjust Outfront Borelight (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Check	Reticle Alignment on Light Source	G509	Sensor Display (VSD)	Visually Align Reticle V-4(E)	Verify Reticle Aligned C-2				2
Set	TADS BRSIT Switch	G560	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TADS) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)		1
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Up) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)		1
Adjust	Azimuth	G070	Sensor Display (VSD)	Visually Align Feature V-4(I)	Verify Reticle Centered C-2	Turn Switch P-2(R)	Rotary Thumbwheel - Rheostat (RT-R)		10
Adjust	Elevation	G166	Sensor Display (VSD)	Visually Align Feature V-4(I)	Verify Reticle Centered C-2	Turn Switch P-2(R)	Rotary Thumbwheel - Rheostat (RT-R)		10
Check	Reticle Alignment on Light Source	G509	Sensor Display (VSD)	Visually Align Reticle V-4(E)	Verify Reticle Aligned C-2				2
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Center) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)		1
Set	TADS BRSIT Switch	G560	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)		1
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Gates No Longer Tracking) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)		1

AH-64 FUNCTION ANALYSIS

FUNCTION 014 Arrange Cockpit (Gunner)

TOTAL TIME (Approximate)

122 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Position	Canopy Door		G093	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(I)	Verify Desired Status (Open) C-2	Move Door P-5(R)			4
Check	Loose Equipment		G366	Safety (S)	Visually Inspect Equipment Status V-2(I)	Verify Correct Status (Secured) C-2				15
Adjust	Seat Position		G533	Safety (S)	Visually Align Body Position V-4(I)	Make Conditioned Association (Adjustment Needed) C-1	Move Seat P-5(B)	Hand Grip (HG)		10
Adjust	Restraint Harness		G506	Safety (S)	Feel Harness Pressure K-1(T)	Verify Correct Status (Harness Secure) C-2	Fasten Seat Belt P-5(B)			30
Check	Inertial Peel Lock		G343	Safety (S)	Feel Harness Pressure K-1(T)	Verify Correct Status (Reel Locked) C-2	Pull Harness and Move Lever P-5(L)	Lever - 2 Positions (L-2)		30
Set	Pedal Adjustment Lever		G677	Safety (S)	Visually Monitor Lever Placement V-3(I)	Evaluate Position Options and Decide Correct Position (Unlock) C-3	Move Lever P-2(R)	Directional Hand Lever (HL)		2
Adjust	Pedals		G456	Flight Control (FC)	Feel Pedal Position K-1(F)	Make Conditioned Association (Adjustment Needed) C-1	Move Pedals P-2(F)	Directional Foot Press (FP)		25
Set	Pedal Adjustment Lever		G677	Safety (S)	Visually Monitor Lever Placement V-3(I)	Evaluate Position Options and Decide Correct Position (Lock) C-3	Move Lever P-2(R)	Directional Hand Lever (HL)		2

AH-64 FUNCTION ANALYSIS

FUNCTION 015 Arrange Cockpit (Pilot)

TOTAL TIME (Approximate)

126 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Position	Canopy Door	P093	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(I)	Verify Desired Status (Open) C-2	Move Door P-5 (R)		4
Check	Loose Equipment	P366	Safety (S)	Visually Inspect Equipment Status V-2(I)	Verify Correct Status (Secured) C-2			15
Adjust	Seat Position	P533	Safety (S)	Visually Align Body Position V-4(I)	Make Conditioned Association (Adjustment Needed) C-1	Move Seat P-5 (B)	Hand Grip (HG)	10
Adjust	Restraint Harness	P506	Safety (S)	Feel Harness Pressure K-1 (T)	Verify Correct Status (Harness Secure) C-2	Fasten Seat Belt P-5 (B)		30
Check	Inertial Reel Lock	P343	Safety (S)	Feel Harness Pressure K-1 (T)	Verify Correct Status (Reel Locked) C-2	Pull Harness and Move Lever (L) P-5	Lever - 2 Positions (L-2)	30
Set	Pedal Adjustment Lever	P677	Safety (S)	Visually Monitor Lever Placement V-3(I)	Evaluate Position Options and Decide Correct Position (Unlock) C-3	Move Lever P-2(R)	Directional Hand Lever (HL)	2
Adjust	Pedals	P456	Flight Control (FC)	Feel Pedal Position K-1(F)	Make Conditioned Association (Adjustment Needed) C-1	Move Pedals and Move Lever P-2(F)	Directional Foot Press (FP)	25
Set	Pedal Adjustment Lever	P677	Safety (S)	Visually Monitor Lever Placement V-3(I)	Evaluate Position Options and Decide Correct Position (Lock) C-3	Move Lever P-2(R)	Directional Hand Lever (HL)	2
Set	Park Brake	P455	Brakes (FB)	Feel Brake Position K-1(F)	Decide and Verify Correct Position (Locked) C-3	Push Toe Brakes P-2(F)	Directional Foot Press (FP)	2



# AH-64 FUNCTION ANALYSIS

## FUNCTION 015 Arrange Cockpit (Pilot) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	Brake Lever		P658	Brakes (FB)	Visually Locate Lever V-4(l)	Make Conditioned Association (Lever Set) C-1	Pull Handle P-2(R)		Push-Pull Handle (PPH)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 016 Change Battle Position

TOTAL TIME (Approximate)

Continuous\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Flight Mode Symbology Switch	P244	Symbol Generator (ASG)	Feel Switch Movement/ Visually Discriminate Flight Symbols K-2(R)/V-6(I)	Evaluate Symbology Options; Decide and Verify Correct Symbology (Transition) C-3	Move Switch P-1 (R)	Springloaded Toggle - 4 Positions (SPT-4)	2
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1
Increase	Power	P679	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		1
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Altitude	P065	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Check	Altitude (Inflight)	P655	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Altitude	P036	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Check	Airspeed Indicator (Inflight)	P654	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.  
 \*\*The function "Change Battle Position" is a continuous function whose length may vary with the specific segment in which it occurs.

AH-64 FUNCTION ANALYSIS

FUNCTION 016 Change Battle Position (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Airspeed	P031	Flight Control (FC)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(B)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		.5*
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Power	P466	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Check	Heading Indicator (Inflight)	P663	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Heading	P304	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Check	Trim Ball (Inflight)	P685	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(F)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(F)		1*
Adjust	Trim	P600	Flight Control (FC)	Feel Control Movements K-4(F)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)		1*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.

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AH-64 FUNCTION ANALYSIS

FUNCTION 017 Check Aircraft Systems (Gunner)

TOTAL TIME (Approximate) 16 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Engine Instruments		G211	Engine Instruments (EIN)	Visually Scan Instrument Indications V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-2			5
Check	Flight Instruments		G242	Flight Instruments (FI)	Visually Scan Instrument Indications V-3 (I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-2			5
Check	MASTER CAUTION/ WARNING Panel		G398	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Status (No Lights Illuminated) C-2			1
Check	Fuel Quantity Indicator (Internal)		G268	Fuel (EF)	Visually Inspect Instrument Indication V-2(I)	Interpret Symbolic Readout (Quantity) and Make Judgment (Enough Fuel) C-5			3

# AH-64 FUNCTION ANALYSIS

FUNCTION 018 Check Aircraft Systems (Pilot) TOTAL TIME (Approximate) 10.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Engine Instruments	P211	Engine Instruments (EIN)	Visually Scan Instrument Indications V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-2			5
Check	MASTER CAUTION/ WARNING Panel	P398	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Status (No Lights Illuminated) C-2			1
Check	Fuel Quantity Indicator (Internal)	P268	Fuel (EF)	Visually Inspect Instrument Indication V-2(I)	Interpret Symbolic Readout (Quantity) and Make Judgment (Enough Fuel) C-5			3

AH-64 FUNCTION ANALYSIS

FUNCTION 019 Check Area Security (Sensor Search)

TOTAL TIME (Approximate)

Continuous\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (IADS) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (FLIR/DTV/DVO), and Verify Correct Image C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position W, M, N, Z) and Verify Correct Image C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/Visually Monitor Sensor Images K-5(R)/V-3(I)	Evaluate Sensory Feedback and Verify Switch Engaged (Image Changing) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	(c)
Verify	Area Secure (G)	G063	Sensor Display (VSD)	Visually Detect Objects V-1(I)	Verify Correct Status (Area Secure) C-2			(c)

\*The function "Check Area Security (Sensor Search)" is a continuous function whose length may vary with the specific segment in which it occurs; the length of the continuous tasks, in turn, is determined by the length of the function.

# AH-64 FUNCTION ANALYSIS

FUNCTION 020 Check Area Security (Visual Search)

TOTAL TIME (Approximate)

Continuous\*

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Perform	Visual Search		P637	External Visual Field (VEX)	Visually Search External Field of View V-3	Identify Objects C-2				(c)*
Verify	Area Secure (P)		P657	External Visual Field (VEX)	Visually Detect Objects V-1(E)	Verify Correct Status (Area Secure) C-2				(c)*

\*The function "Check Area Security (Visual Search)" is a continuous function whose length may vary; the length of the continuous tasks, in turn, is determined by the length of the function.

AH-64 FUNCTION ANALYSIS

FUNCTION 021 Check Armament Subsystems (Gunner)

TOTAL TIME (Approximate)

9 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	CPG ARM Switch	G131	Weapons (AW)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 3 Positions (ST-3)	1
Check	RKT SEL Switch	G514	Rocket Control (ARC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	GUN SEL Switch	G287	Gun Control (AGC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	MSL SEL Switch	G424	Missile Control (AMC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	LSR SEL Switch	G373	Laser (AL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	PLT/GND ORIDE Switch	G461	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 2 Positions (ST-2)	1



# AH-64 FUNCTION ANALYSIS

FUNCTION 022 Check Armament Subsystems (Pilot)

TOTAL TIME (Approximate)

7.5 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	MASTER ARM Switch	P396	Weapons (AW)	Visually Inspect Switch Position and Check Light V-2(I)	Verify Current Position Correct (Off/Light Extinguished) C-2		Toggle - 3 Positions (T-3)	1
Check	RKT SEL Switch	P514	Rocket Control (ARC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	GUN SEL Switch	P287	Gun Control (AGC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	MSL SEL Switch	P424	Missile Control (AMC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	STORES JETT Switches	P556	Weapons (AW)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Guard Covers Down) C-2		4 Springloaded Covered Toggles (SPCT)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 023 Check Cockpit Conditions (Gunner)

TOTAL TIME (Approximate) 76 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	First Aid Kit		G240	Safety (S)	Visually Inspect Equipment Condition and Read Dates V-7(I)	Verify Current Condition Okay (Sealed/Current) C-2				5
Check	Seat Cushions		G532	Safety (S)	Visually Inspect Equipment Condition V-2(I)	Verify Current Condition Okay (Serviceable) C-2				10
Check	Restraint Harness		G507	Safety (S)	Visually Inspect Equipment Condition V-2(I)	Verify Current Condition Okay (Serviceable) C-2				10
Check	Canopy		G090	Airframe (FA)	Visually Inspect Equipment Condition V-2(I)	Verify Current Condition Okay (Clean/Serviceable) C-2				8
Check	Loose Equipment		G366	Safety (S)	Visually Inspect Equipment Status V-2(I)	Verify Correct Status (Secured) C-2				15
Check	Publications		G476	Safety (S)	Read Titles and Dates V-7(I)	Verify Correct Status (Present/Current) C-2				25

AH-64 FUNCTION ANALYSIS

FUNCTION 024 Check Cockpit Conditions (Pilot)

TOTAL TIME (Approximate)

351 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	First Aid Kit	P240	Safety (S)	Visually Inspect Equipment Condition and Read Dates V-7(I)	Verify Current Condition Okay (Sealed/Current) C-2			5
Check	Seat Cushions	P532	Safety (S)	Visually Inspect Equipment Condition V-2(I)	Verify Current Condition Okay (Serviceable) C-2			10
Check	Restraint Harness	P507	Safety (S)	Visually Inspect Equipment Condition V-2(I)	Verify Current Condition Okay (Serviceable) C-2			10
Check	Canopy	P090	Airframe (FA)	Visually Inspect Equipment Condition V-2(I)	Verify Current Condition Okay (Clean/Serviceable) C-2			8
Check	Loose Equipment	P366	Safety (S)	Visually Inspect Equipment Status V-2(I)	Verify Correct Status (Secured) C-2			15
Check	Publications/Logbook	P477	Safety (S)	Read Titles and Dates V-7(I)	Verify Correct Status (Present/Current) C-2	Complete Forms P-6(R)		300*

\*The reported time represents an estimate of the average amount of time required to check the publications and logbook; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 025 Check Collective Switches (Gunner)

TOTAL TIME (Approximate) 8 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Night Vision Switch		G429	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2			Toggle - 3 Positions (T-3)	1
Check	BRS,T HMD/Polarity Switch		G087	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Center) C-2			Springloaded Center Toggle - 3 Positions (SCT-3)	1
Check	Searchlight Switch		G531	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2			Toggle - 3 Positions (T-3)	1
Set	Collective Friction		G121	Flight Control (FC)	Feel Collar Movement K-5(L)	Decide Desired Amount C-3	Turn Collar P-4(L)		Rotary Collar (RCL)	3

# AH-64 FUNCTION ANALYSIS

FUNCTION 026 Check Collective Switches (Pilot)

TOTAL TIME (Approximate)

8 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Night Vision Switch	P429	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (PNVS) C-2		Toggle - 3 Positions (T-3)	1
Check	BRST HMD/Polarity Switch	P087	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Center) C-2		Springloaded Center Toggle - 3 Positions (SCT-3)	1
Check	Searchlight Switch	P531	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Set	Collective Friction	P121	Flight Control (FC)	Feel Collar Movement K-5(L)	Decide Desired Amount C-3	Turn Collar P-4(L)	Rotary Collar (RCL)	3

# AH-64 FUNCTION ANALYSIS

FUNCTION 027 Check Engine 1 ECU Lockout System

TOTAL TIME (Approximate)

33 Seconds

TASKS				WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	ENG 1 PWR Lever	P182	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Lockout) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Check	ENG 1 NP/NGNR	P177	Engine Instruments (EIN)	Visually Inspect Instrument Indications V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NP/NGNR Increasing) C-2			4
Adjust	ENG 1 PWR Lever	P180	Fuel (EF)	Feel Lever Movement/ Visually Monitor Instrument Indication K-4(L/V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (ENG 1 Torque Below ENG 2 Torque) C-2	Move Lever P-4(L)	Directional Lever - Continuous (DL-C)	5
Check	ENG 1 NP/NGNR	P177	Engine Instruments (EIN)	Visually Inspect Instrument Indications V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NP/NGNR Decreasing) C-2			4
Adjust	ENG 1 PWR Lever	P180	Fuel (EF)	Feel Lever Movement/ Visually Monitor Instrument Indication K-4(L/V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Fuel Flow Under Manual Control) C-2	Move Lever P-4(L)	Directional Lever - Continuous (DL-C)	5
Set	ENG 1 PWR Lever	P182	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Idle) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Set	ENG 1 PWR Lever	P182	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Fly) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3

# AH-64 FUNCTION ANALYSIS

## FUNCTION 027 Check Engine 1 ECU Lockout System [Continued]

TASKS					WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	ENG 1 NP	P176	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NP Has Reached 100%) C-2				2

# AH-64 FUNCTION ANALYSIS

FUNCTION 028 Check Engine 2 ECU Lockout System

TOTAL TIME (Approximate) 33 Seconds

TASKS				WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Lockout) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Check	ENG 2 NP/NG/NR	P193	Engine Instruments (EIN)	Visually Inspect Instrument Indications V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NP/NG/NR Increasing) C-2			4
Adjust	ENG 2 PWR Lever	P196	Fuel (EF)	Feel Lever Movement/ Visually Monitor Instrument Indication K-4(L)/V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (ENG 2 Torque Below ENG 1 Torque) C-2	Move Lever P-4(L)	Directional Lever - Continuous (DL-C)	5
Check	ENG 2 NP/NG/NR	P193	Engine Instruments (EIN)	Visually Inspect Instrument Indications V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NP/NG/NR Decreasing) C-2			4
Adjust	ENG 2 PWR Lever	P196	Fuel (EF)	Feel Lever Movement/ Visually Monitor Instrument Indication K-4(L)/V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Fuel Flow Under Manual Control) C-2	Move Lever P-4(L)	Directional Lever - Continuous (DL-C)	5
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Idle) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Fly) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3



# AH-64 FUNCTION ANALYSIS

FUNCTION 028 Check Engine 2 ECU Lockout System [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE		PSYCHOMOTOR		
Check	ENG 2 NP		P192	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NP Has Reached 100%) C-2				2

# AH-64 FUNCTION ANALYSIS

FUNCTION 029 Check Engine Chop Circuit

TOTAL TIME (Approximate)

30.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Move	Slide Collar on Collective	P545	Fuel (EF)	Feel Collar Movement K-5(L)	Verify Collar Moving C-2	Move Collar (Clockwise) P-4(L)		Rotary Collar (RCL)	3
Check	NP and NG	P434	Engine Instruments (EIN)	Visually Inspect Instrument Indications V-2(I)	Interpret Sensory Readouts and Verify Correct Status (NP and NG Decreasing) C-2				4
Check	ENG CHOP Light	P203	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2				5
Reset	MASTER CAUTION/ WARNING Panel Lights	P399	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Status (Lights Extinguished) C-2	Press Switch P-1(R)		Springloaded Press - 2 Positions (SP-2)	1
Set	PWR Levers	P479	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Idle) C-3	Move Levers P-2(L)		2 Directional Levers - 4 Positions Each (DL-4)	5
Move	Slide Collar on Collective	P545	Fuel (EF)	Feel Collar Movement K-5(L)	Verify Collar Moving C-2	Move Collar (Counterclockwise) P-4(L)		Rotary Collar (RCL)	3
Check	ENG CHOP Light	P203	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2				5
Set	PWR Levers	P479	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Fly) C-3	Move Levers P-2(L)		2 Directional Levers - 4 Positions Each (DL-4)	5
Check	NP and NR	P435	Engine Instruments (EIN)	Visually Inspect Instrument Indications V-2(I)	Interpret Sensory Readouts and Verify Correct Status (NP and NR Increasing) C-2				4

AH-64 FUNCTION ANALYSIS

FUNCTION 030 Check Fuel Sample

TOTAL TIME (Approximate)

26 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Collect	Fuel Sample	P269	Fuel (EF)	Visually Coordinate Hand Movement V-4(E)	Make Judgment (Large Enough Sample) C-5	Draw Fuel P-5(B)		20
Inspect	Fuel Sample	P270	Fuel (EF)	Visually Inspect Fuel Condition V-2(E)	Evaluate Fuel Characteristics and Make Judgment (Any Contamination) C-5			5

# AH-64 FUNCTION ANALYSIS

FUNCTION 031 Check Helmet (Gunner)

TOTAL TIME (Approximate)

91.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Don	Helmet		G312	Communication/ Sensor Display (UC/VSD)	Feel Helmet Position K-1(H)	Evaluate Sensory Feedback and Verify Correct Status (Adjusted) C-2	Put on Helmet P-5(B)			25
Connect	Helmet		G310	Communication/ Sensor Display (UC/VSD)	Visually Coordinate Hand Movement V-4(I)	Evaluate Sensory Feedback and Verify Correct Status (Connected Correctly) C-2	Connect Plug P-5(B)			5
Position	IHADSS		G330	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Adjusted) C-2	Move IHADSS P-5(R)			60*

\*The reported time represents an estimate of the average amount of time required to position the IHADSS; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 032 Check Helmet (Pilot)

TOTAL TIME (Approximate)

91.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Don	Helmet	P312	Communication/ Sensor Display (UC/VSD)	Feel Helmet Position K-1(H)	Evaluate Sensory Feedback and Verify Correct Status (Adjusted) C-2	Put on Helmet P-5(B)		25
Connect	Helmet	P310	Communication/ Sensor Display (UC/VSD)	Visually Coordinate Hand Movement V-4(I)	Evaluate Sensory Feedback and Verify Correct Status (Connected Correctly) C-2	Connect Plug P-5(B)		5
Position	IHADSS	P330	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Adjusted) C-2	Move IHADSS P-5(R)		60*

\*The reported time represents an estimate of the average amount of time required to position the IHADSS; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 033 Check Instrument Panel (Gunner)

TOTAL TIME (Approximate) 46.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Position	CANOPY JETT Pin	G098	Safety (S)	Visually Coordinate Hand Movement V-4(I)	Verify Correct Status (Pin Removed) C-2	Remove Pin P-5(L)	Push-Pull Pin (PPP)	5
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (STBY) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Check	ACQ SEL Switch (G)	G006	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (FXD) C-2		Rotary - 7 Positions (5 Functional) (R-7)	2
Check	MUX Switch	G426	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (PRI) C-2		Safety Toggle - 2 Positions (ST-2)	1
Check	FCC/MUX Switch	G225	Fire Control Computer (AFC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (On) C-2		Safety Toggle - 2 Positions (ST-2)	1
Check	IHADSS BRS/IT Switch	G331	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Springloaded Center Toggle - 3 Positions (SCT-3)	1
Check	TADS BRS/IT Switch	G559	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	LSR MSL CCM Switch	G372	Laser (AL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 2 Positions (ST-2)	1
Check	PLT/GND ORIDE Switch	G461	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 2 Positions (ST-2)	1
Check	LRF/D CCM Switch	G369	Laser (AL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 033 Check Instrument Panel (Gunner) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	FC SYM GEN Switch	G223	Symbol Generator (ASG)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1		
Check	IHADSS Switch	G336	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1		
Check	TADS Switch	G563	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1		
Check	Engine Instruments (Condition)	G212	Engine Instruments (EIN)	Visually Inspect Instrument Condition V-2(I)	Verify Current Condition Okay C-2			4		
Check	Airspeed Indicator	G032	Flight Instruments (FI)	Visually Inspect Instrument Indication V-2(I)	Verify Readout Correct (Zero) C-2			1		
Check	Remote Attitude Indicator	G502	Flight Instruments (FI)	Visually Inspect Instrument Status V-2(I)	Verify Correct Status (Off Flag) C-2			1		
Check	Radio Magnetic Indicator	G491	Flight Instruments (FI)	Visually Inspect Instrument Status V-2(I)	Verify Correct Status (Off Flag) C-2			1		
Set	Altimeter	G034	Flight Instruments (FI)	Visually Inspect Instrument Indication and Monitor Adjustment V-3(I)	Decide and Verify Correct Readout (Field Elevation) C-3	Turn Knob P-2(R)	Rotary - Continuous (R-C)	3		
Check	Vertical Speed Indicator	G623	Flight Instruments (FI)	Visually Inspect Instrument Indication V-2(I)	Verify Readout Correct (Zero) C-2			1		
Set	Clock	G118	Flight Instruments (FI)	Visually Inspect Instrument Indication and Monitor Adjustment V-3(I)	Decide and Verify Correct Readout (Time) C-3	Turn Knob P-2(R)	Rotary - Continuous (R-C)	6		

# AH-64 FUNCTION ANALYSIS

## FUNCTION 033 Check Instrument Panel (Gunner) [Continued]

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	LT Switch	G376	Sensor Control (VSC)	Visually Inspect Switch Position V-2(l)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1



AH-64 FUNCTION ANALYSIS

FUNCTION 034 Check Instrument Panel (Pilot) TOTAL TIME (Approximate) 82 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	TAILWHEEL Switch	P572	Gear (FG)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Lock) C-2		Safety Toggle - 2 Positions (ST-2)	1
Position	CANOPY JETT Pin	P098	Safety (S)	Visually Coordinate Hand Movement V-4(I)	Verify Correct Status (Pin Removed) C-2	Remove Pin P-5(L)	Push-Pull Pin (PPP)	5
Check	SIGHT SEL Switch (P)	P540	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (STBY) C-2		Rotary - 3 Positions (R-3)	1
Check	ACQ SEL Switch (P)	P008	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	VID SEL Switch (P)	P632	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (PLT) C-2		Toggle - 3 Positions (T-3)	1
Check	ACM Switch	P004	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	PNVS Switch	P464	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 2 Positions (ST-2)	1
Check	IHADSS BRSIT Switch	P331	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Springloaded Center Toggle - 3 Positions (SCT-3)	1
Check	Engine Instruments (Condition)	P212	Engine Instruments (EIN)	Visually Inspect Instrument Condition V-2(I)	Verify Current Condition Okay C-2			4
Check	Magnetic Compass	P382	Flight Instruments (FI)	Visually Inspect Instrument Status V-2(I)	Verify Correct Status (Card Present) C-2			5

AH-64 FUNCTION ANALYSIS

FUNCTION 034 Check Instrument Panel (Pilot) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	BRU	P088	Sensor Display (VSD)	Visually Inspect Equipment Condition V-2(I)	Verify Current Condition Okay C-2			3
Set	Instrument Test Panel Light Switch	P352	Lighting (UL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	Instrument Test Panel Brightness	P351	Lighting (UL)	Visually Discriminate Light Intensity V-6(I)	Decide Desired Level C-3	Turn Switch P-2(L)	Rotary - Rheostat (R-R)	2
Check	Airspeed Indicator	P032	Flight Instruments (FI)	Visually Inspect Instrument Indication V-2(I)	Verify Readout Correct (Zero) C-2			1
Check	Standby Altitude Indicator	P548	Flight Instruments (FI)	Visually Inspect Instrument Status V-2(I)	Verify Correct Status (Indicator Caged) C-2		Pull-Turn Knob (PTK)	1
Check	VDU Control Switch	P621	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 4 Positions (R-4)	1
Check	Turn and Slip Indicator	P602	Flight Instruments (FI)	Visually Inspect Instrument Condition V-2(I)	Verify Current Condition Okay C-2			1
Check	RAD ALT Switches	P485	Flight Instruments (FI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		2 Rotary - Continuous (R-C)	1
Set	Altimeter	P034	Flight Instruments (FI)	Visually Check Instrument Indication and Monitor Adjustment V-3(I)	Decide and Verify Correct Readout (Field Elevation) C-3	Turn Knob P-2(R)	Rotary - Continuous (R-C)	3
Check	Vertical Speed Indicator	P623	Flight Instruments (FI)	Visually Inspect Instrument Indication V-2(I)	Verify Readout Correct (Zero) C-2			1

AH-64 FUNCTION ANALYSIS

FUNCTION 034 Check Instrument Panel (Pilot) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Check	Horizontal Situation Indicator (HSI) Knobs	P316	Flight Instruments (FI)	Visually Inspect Equipment Condition V-2(I)	Verify Current Condition Okay (Functional) C-2	Turn Knobs P-2(R)	2 Rotary - Continuous (R-C)	3	
Check	Radar Jamming Control Switch	P487	Survivability (US)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1	
Check	Infrared Jamming Control Switch	P344	Survivability (US)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1	
Check	Chaff Dispenser ARM Switch	P103	Survivability (US)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1	
Set	Chaff Dispenser Control Switch	P105	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Switch Options and Decide Desired Position C-3	Turn Switch P-2(R)	Rotary - 2 Positions (R-2)	2	
Set	Chaff Counter	P102	Survivability (US)	Visually Monitor Switch Indication V-3(I)	Decide and Verify Correct Entry (Number of Cartridges) C-3	Push and Turn Knob P-2(R)	Rotary - Continuous (R-C)	4	
Set	Clock	P118	Flight Instruments (FI)	Visually Inspect Instrument Indication and Monitor Adjustment V-3(I)	Decide and Verify Correct Readout (Time) C-3	Turn Knob P-2(R)	Rotary - Continuous (R-C)	6	
Set	Accelerometer	P001	Flight Instruments (FI)	Visually Inspect Instrument Indication and Monitor Adjustment V-3(I)	Decide Correct Status C-3	Press Switch P-1(R)	Springloaded Press (SP)	2	
Check	HARS Control Switch	P301	Navigation Control (NC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 4 Positions (R-4)	1	

AH-64 FUNCTION ANALYSIS

FUNCTION 034 Check Instrument Panel (Pilot) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	EMER HYD PWR Switch (P)	P168	Hydraulics (FH)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off/Guard Down) C-2			Covered Toggle (CT)	1	
Set	COMM Control Panel Volume Switch	P122	Communication (UC)	Visually Monitor Switch Movement V-3(I)	Decide Desired Level C-3	Turn Switch P-2(R)		Rotary - Rheostat (R-R)	1	
Set	Receiver Selector Volume Switches	P497	Communication (UC)	Visually Monitor Switch Movement V-3(I)	Decide Desired Level C-3	Turn Switches P-2(R)		8 Push-Pull Rotary - Rheostat (4 Functional) (PPR-R)	4	
Set	Transmitter Selector Switch	P597	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position C-3	Turn Switch P-2(R)		Rotary - 7 Positions (R-7)	1	
Set	ICS Switch	P324	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (Hot MIC or NORM) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1	

# AH-64 FUNCTION ANALYSIS

FUNCTION 035 Check Left Control Console (Gunner)

TOTAL TIME (Approximate)

45 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Circuit Breakers (G)	G110	Electrical (UEL)	Visually Scan Switch Positions/Feel Switch Positions K-1(L)/V-3(I)	Verify Current Positions Correct (In) C-2	Move Hand Over Breakers P-1(L)	Pressure Circuit Breakers (PCB)	8
Check	Utility Light	G618	Lighting (UL)	Visually Inspect Equipment Status V-2(I)	Verify Correct Status (Off/Stowed) C-2		Rotary - Rheostat (R-R)	1
Check	Floodlight Switch	G248	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	INST Light Switch	G348	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - Rheostat (R-R)	1
Set	L CSL Light Switch	G358	Lighting (UL)	Visually Monitor Switch Placement V-3(I)	Decide Desired Position C-3	Turn Switch P-2(L)	Rotary - Rheostat (R-R)	1
Set	R CSL Light Switch	G483	Lighting (UL)	Visually Monitor Switch Placement V-3(I)	Decide Desired Position C-3	Turn Switch P-2(L)	Rotary - Rheostat (R-R)	1
Check	Fuel ORIDE Switch	G264	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (PLT) C-2		Safety Toggle - 2 Positions (ST-2)	1
Check	Fuel TRANS Switch	G272	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	Fuel BOOST Switch	G260	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	Fuel TK SEL Switch	G271	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2		Toggle - 3 Positions (T-3)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 035 Check Left Control Console (Gunner) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	PWR Levers	G478	Fuel (EF)	Visually Inspect Lever Position V-2(I)	Verify Current Positions Correct (Off) C-2		2 Directional Levers - 4 Positions Each (DL-4)	2
Check	EMER HYD PWR Switch (G)	G167	Hydraulics (FH)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off/Guard Down) C-2		Covered Toggle (CT)	1
Check	BAT OVRD Switch	G074	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NRM/Guard Down) C-2		Covered Toggle (CT)	1
Check	TADS/PINVS Anti-Ice Switch	G565	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	Windshield Wiper Switch (G)	G648	Safety (S)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (PLT) C-2		Toggle - 2 Positions (T-2)	1
Check	STBY FAN Switch	G555	Environmental (UEN)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	ADSS Switch	G013	Fire Control Computer (AFC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 2 Positions (ST-2)	1
Check	Video Recorder Control Switch	G634	Video (UV)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (PLT) C-2		Toggle - 2 Positions (T-2)	1
Check	Video Recorder Mode Switch	G635	Video (UV)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 5 Positions (R-5)	1
Check	Video Recorder Play Switch	G636	Video (UV)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (FWD) C-2		Rotary - 5 Positions (R-5)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 035 Check Left Control Console (Gunner) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	Missile Type Switch	G420	Missile Control (AMC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (LASER) C-2			Toggle - 3 Positions (1 Functional) (T-3)	1	
Check	Missile Mode Switch	G418	Missile Control (AMC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (STBY) C-2			Rotary - 4 Positions (R-4)	1	
Check	Missile Control Switch	G415	Missile Control (AMC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2			Rotary - 4 Positions (R-4)	2	
Check	DEK Data Entry Selector Switch	G141	Fire Control Computer (AFC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2			Rotary - 7 Positions (R-7)	1	

AH-64 FUNCTION ANALYSIS

FUNCTION 036 Check Left Control Console (Pilot)

TOTAL TIME (Approximate)

75.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
VF9B	OBJECT							
Check	Auxiliary Vent Handle	P067	Environmental (UEN)	Visually Inspect Equipment Status V-2(I)	Verify Correct Status (Closed) C-2		Ratchet Lever (RL)	1
Check	Utility Light	P618	Lighting (UL)	Visually Inspect Equipment Status V-2(I)	Verify Correct Status (Off/Stowed) C-2		Rotary - Rheostat (R-R)	1
Check	OAT Gauge	P436	Flight Instruments (FI)	Visually Inspect Instrument Condition V-2(I)	Verify Current Condition Okay C-2			1
Check	Windshield Wiper Switch (P)	P649	Safety (S)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 4 Positions (R-4)	1
Check	Pilot Tubes Anti-ice Switch	P460	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	TADS/PNVS Anti-ice Switch	P565	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	ENG INLET Anti-ice Switch	P204	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	Main and Tail Rotor Anti-ice Switch	P383	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	Anti-ice Control Switch	P050	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	Anti-ice Test Switch	P051	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1



# AH-64 FUNCTION ANALYSIS

## FUNCTION 036 Check Left Control Console (Pilot) (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Canopy Heater Switch	P096	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	Canopy DeLogger Switch	P091	Anti-ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	Formation Light Switch	P250	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 3 Positions (R-3)	1
Check	Navigation Light Switch	P223	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	Anticollision Light Switch	P049	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	INST Light Switch	P348	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - Rheostat (R-R)	1
Check	Floodlight Switch	P248	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Set	L CSL Light Switch	P358	Lighting (UL)	Visually Monitor Switch Placement V-3(I)	Decide Desired Position C-3	Turn Switch P-2(L)	Rotary - Rheostat (R-R)	1
Set	R/CTR CSL Light Switch	P495	Lighting (UL)	Visually Monitor Switch Placement V-3(I)	Decide Desired Position C-3	Turn Switch P-2(L)	Rotary - Rheostat (R-R)	1
Check	EXT TK Fuel Switch	P219	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 036 Check Left Control Console (Pilot) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	Fuel TRANS Switch	P272	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1		
Check	Fuel BOOST Switch	P260	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1		
Check	Fuel CROSSFEED Switch	P262	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2		Safety Toggle - 3 Positions (ST-3)	1		
Set	ENG 1 Fuel Switch	P172	Fuel (EF)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Choose Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1		
Set	ENG 2 Fuel Switch	P188	Fuel (EF)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Choose Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1		
Check	PWR Levers Travel	P480	Fuel (EF)	Visually Monitor Lever Movement V-3(I)	Verify Free Travel C-2	Move Levers P-2(L)	2 Directional Levers - 4 Positions Each (DL-4)	10		
Check	PWR Levers	P478	Fuel (EF)	Visually Inspect Lever Position V-2(I)	Verify Current Position Correct (Off) C-2		2 Directional Levers - 4 Positions Each (DL-4)	2		
Check	ENG 1 START Switch	P183	Ignition (EI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Springloaded Toggle - 3 Positions (SPT-3)	1		
Check	ENG 2 START Switch	P198	Ignition (EI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Springloaded Toggle - 3 Positions (SPT-3)	1		

## AH-64 FUNCTION ANALYSIS

## FUNCTION 036 Check Left Control Console (Pilot) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	MASTER IGN Switch	P400	Ignition (EI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (On) C-2		Rotary - 2 Positions (R-2)	1
Check	RTR BK Switch	P527	Rotor (FR)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 3 Positions (ST-3)	1
Check	GEN 1 Switch	P273	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 3 Positions (ST-3)	1
Check	GEN 2 Switch	P276	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 3 Positions (ST-3)	1
Check	BATT/EXT PWR Switch	P075	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	STORES JETT Switches	P556	Weapons (AW)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Guard Covers Down) C-2		4 Springloaded Covered Toggles (SPCT)	1
Check	Rocket Zone Inventory	P521	Rocket Control (ARC)	Visually Inspect Codes V-2(I)	Verify Correct Inventory C-4		5 Rotary Thumbwheels - 12 Positions Each (RT-12)	8
Check	ENCU Switch	P170	Environmental (UEN)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (On) C-2		Toggle - 2 Positions (T-2)	1
Set	FAN Switch	P222	Environmental (UEN)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	TEMP Switch	P584	Environmental (UEN)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position C-3	Turn Switch P-2(L)	Rotary - Rheostat (R-R)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 037 Check Left Side - Fuselage and Nose

TOTAL TIME (Approximate)

99.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Canopy Glass	P095	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay C-2			10
Position	External Canopy Pin	P220	Safety (S)	Visually Coordinate Hand Movement V-4(E)	Verify Correct Status (Pin Removed) C-2	Remove Pin P-5(R)	Push-Pull Pin (PPP)	5
Check	OAT Gauge Extension	P437	Flight Instruments (FI)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			2
Check	Static Port	P554	Flight Instruments (FI)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Unobstructed) C-2			3
Check	Main Landing Gear	P384	Gear (FG)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			30
Check	Static Ground Cable	P553	Safety (S)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			2
Check	Avionics Bay	P068	Communication (UC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2	Open Access Door P-5(R)		30
Check	Radar Warning Antenna	P490	Survivability (US)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			3
Check	TADS/PNVS Turret	P566	Sensor Control (VSC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10

AH-64 FUNCTION ANALYSIS

FUNCTION 038 Check Left Side - Mast

TOTAL TIME (Approximate)

260.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Main Transmission Oil	P387	Transmission (FT)	Visually Inspect Sight Gauge V-2(E)	Verify Correct Level C-2	Open and Close Access Door P-5(R)		5
Check	Main Transmission Filter Button	P386	Transmission (FT)	Visually Inspect Filter Buttons V-2(E)	Verify Correct Status (Button In) C-2			2
Check	Nose Gear Box Oil	P432	Transmission (FT)	Visually Inspect Sight Gauge V-2(E)	Verify Correct Level C-2			2
Check	Nose Gear Box Oil Cap	P433	Transmission (FT)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure/Safetied) C-2			3
Check	Nose Gear Box Filter Button	P431	Transmission (FT)	Visually Inspect Filter Buttons V-2(E)	Verify Correct Status (Button In) C-2			2
Check	Nose Gear Box Cowling	P430	Transmission (FT)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			5
Check	Engine Inlet	P208	Engine (EE)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Unobstructed) C-2			5
Position	Engine Cowling	P206	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(E)	Verify Desired Status (Open) C-2	Open Door P-5(R)		8
Check	Engine Oil Level	P216	Engine Oil (EO)	Visually Inspect Sight Gauge Indication V-2(E)	Verify Correct Level C-2	Open and Close Access Door P-5(R)		5
Check	Oil Filter Buttons	P442	Engine Oil (EO)	Visually Inspect Filter Buttons V-2(E)	Verify Correct Status (Button In) C-2			2

# AH-64 FUNCTION ANALYSIS

FUNCTION 038 Check Left Side - Mast (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Fuel Filter Buttons	P263	Fuel (EF)	Visually Inspect Filter Buttons V-2(E)	Verify Correct Status (Button In) C-2			2
Position	Engine Cowling	P206	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(E)	Verify Desired Status (Closed) C-2	Close Door P-5(R)		8
Check	Upper Flight Controls and Swastplate	P611	Flight Control (FC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			60
Check	Main Rotor Head and Blades	P385	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			90
Check	Blade and Pitch Link	P082	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			30
Check	Retaining Pins	P508	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			15
Check	Air Data Sensor	P-018	Fire Control Computer (AFC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			8

# AH-64 FUNCTION ANALYSIS

FUNCTION 039 Check Left Side - Rear Fuselage

TOTAL TIME (Approximate) 129.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Empennage	P169	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	Tail Rotor Controls	P569	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	Tail Rotor Hub	P570	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			15
Check	Tail Rotor Blades	P568	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			20
Check	Stabilizer	P546	Flight Control (FC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	Aft Tailboom	P017	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Cover Secure) C-2			15
Check	Transmission Deck Cabwalk Doors	P596	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			20
Check	Equipment Stowage Compartment	P217	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Door Secure) C-2			3
Check	IR Suppressor/Engine Exhaust	P353	Engine (EE)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			8
Check	Aft Stowage Bay	P016	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			3

AH-64 FUNCTION ANALYSIS

FUNCTION 039 Check Left Side - Rear Fuselage (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Nacelle Fire Louvers		P427	Safety (S)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Open) C-2				2
Check	Fire Extinguisher Disc		P237	Safety (S)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Yellow Disc Visible) C-2				2
Check	Ammunition Bay Access		P039	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2				5



AH-64 FUNCTION ANALYSIS

FUNCTION 040 Check Left Side - Wing

TOTAL TIME (Approximate)

113.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Wing	P650	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	Wing Anticollision Light	P651	Lighting (UL)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			2
Check	Wing Navigation Light	P653	Lighting (UL)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			2
Check	Wing Formation Light	P652	Lighting (UL)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			2
Check	Pitot Tube	P459	Flight Instruments (FI)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Unobstructed) C-2			2
Check	Pylons	P482	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	HELLFIRE Launcher ARMW SAFE Switch	P307	Weapons (AW)	Visually Inspect Switch Position V-2(E)	Verify Current Position Correct (Safe) C-2		Rock - 2 Positions (RX-2)	3
Check	HELLFIRE Launcher Mounting	P308	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			10
Check	HELLFIRE Electrical Connector	P306	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Connected Correctly) C-2			5
Check	HELLFIRE Missile Installation	P309	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Missiles Locked) C-2			10

# AH-64 FUNCTION ANALYSIS

FUNCTION 0:10 Check Left Side - Wing [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Rockets Launcher Mounting	P526	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2				10
Check	Rockets Electrical Connector	P522	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Connected Correctly) C-2				5
Check	Rockets Launcher	P525	Weapons (AW)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay C-2				10
Check	Rockets Installation	P524	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Rockets Secure/ Number and Zone Correct) C-5				15
Check	Rockets Igniter Arms	P523	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Connected Correctly) C-2				10

# AH-64 FUNCTION ANALYSIS

FUNCTION 041 Check Overhead Panel

TOTAL TIME (Approximate)

12 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	EDGE LT PNL Switch		P162	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2			Toggle - 2 Positions (T-2)	1
Check	Circuit Breakers (P)		P111	Electrical (UEL)	Visually Scan Switch Positions/Feel Switch Positions K-1(LYW-3(I)	Verify Current Positions Correct (In) C-2	Move Hand Over Breakers P-1(L)		Pressure Circuit Breakers (PCB)	10

## AH-64 FUNCTION ANALYSIS

FUNCTION 042 Check Right Control Console (Gunner)

TOTAL TIME (Approximate) 13.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	COMM Control Panel Volume Switch	G122	Communication (UC)	Visually Monitor Switch Movement V-3(I)	Decide Desired Level C-3	Turn Switch P-2(R)	Rotary - Rheostat (R-R)	1
Set	Receiver Selector Volume Switches	G497	Communication (UC)	Visually Monitor Switch Movement V-3(I)	Decide Desired Level C-3	Turn Switches P-2(R)	8 Push-Pull Rotary - Rheostat (4 Functional) (P-P-R)	4
Set	Transmitter Selector Switch	G597	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (ICS or PVT) C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	1
Set	ICS Switch	G324	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (Hot MIC or NORM) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Check	VHF Control Switch	G624	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 3 Positions (R-3)	1
Check	Doppler Mode Switch	G155	Navigation Control (NC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Rotary - 6 Positions (SR-6)	1
Check	KY58 Power Switch	G356	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 3 Positions (R-3)	1

# AH-64 FUNCTION ANALYSIS

FUNCTION 043 Check Right Control Console (Pilot)

TOTAL TIME (Approximate)

9 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	KY58 Power Switch	P356	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 3 Positions (R-3)	1
Check	UHF Control Switch	P604	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 4 Positions (R-4)	1
Check	VHF Control Switch	P624	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 3 Positions (R-3)	1
Check	KY28 Power Switch	P354	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	Transponder Control Switch	P598	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 4 Positions (R-4)	1
Check	ADF Control Switch	P010	Navigation Control (NC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Rotary - 4 Positions (R-4)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 044 Check Right Side - Mast

TOTAL TIME (Approximate)

272.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Main Transmission Oil	P387	Transmission (FT)	Visually Inspect Sight Gauge V-2(E)	Verify Correct Level C-2	Open and Close Access Door P-5(R)		5
Check	Main Transmission Filter Button	P386	Transmission (FT)	Visually Inspect Filter Buttons V-2(E)	Verify Correct Status (Button In) C-2			2
Check	Nose Gear Box Oil	P432	Transmission (FT)	Visually Inspect Sight Gauge V-2(E)	Verify Correct Level C-2			2
Check	Nose Gear Box Oil Cap	P433	Transmission (FT)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure/Safelined) C-2			3
Check	Nose Gear Box Filter Button	P431	Transmission (FT)	Visually Inspect Filter Buttons V-2(E)	Verify Correct Status (Button In) C-2			2
Check	Nose Gear Box Cowling	P430	Transmission (FT)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			5
Check	Engine Inlet	P208	Engine (EE)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Unobstructed) C-2			5
Position	Engine Cowling	P206	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(E)	Verify Desired Status (Open) C-2	Open Door P-5(R)		8
Check	Engine Oil Level	P216	Engine Oil (EO)	Visually Inspect Sight Gauge Indication V-2(E)	Verify Correct Level C-2	Open and Close Access Door P-5(R)		5
Check	Oil Filter Buttons	P442	Engine Oil (EO)	Visually Inspect Filter Button V-2(E)	Verify Correct Status (Button In) C-2			2

AH-64 FUNCTION ANALYSIS

FUNCTION 044 Check Right Side - Mast [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	Fuel Filter Buttons	P263	Fuel (EF)	Visually Inspect Filter Buttons V-2(E)	Verify Correct Status (Button In) C-2				2	
Position	Engine Cowling	P206	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(E)	Verify Desired Status (Closed) C-2	Close Door P-5(R)			8	
Check	Upper Flight Controls and Swashplate	P611	Flight Control (FC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				60	
Check	Main Rotor Head and Blades	P385	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				90	
Check	Blade and Pitch Link	P082	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				30	
Check	Strap Assembly	P557	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				20	
Check	Retaining Pins	P508	Rotor (FR)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				15	

## AH-64 FUNCTION ANALYSIS

FUNCTION 045 Check Right Side - Rear Fuelage

TOTAL TIME (Approximate) 152 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Nacelle Fire Louvers	P427	Safety (S)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Open) C-2			2
Check	APU Oil Level	P059	APU (UAP)	Visually inspect Sight Gauge Indication V-2(E)	Verify Correct Level C-2	Open Access Door P-5(R)		3
Check	APU Oil Access Door	P058	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2	Close Access Door P-5(R)		2
Check	Air Gravity Fuel Cap	P015	Fuel (EF)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			2
Check	Avionics Bay	P068	Communication (UC)	Visually Inspect Equipment Status V-2(E)	Verify Current Condition Okay C-2	Open Access Door P-5(R)		30
Set	Chaff Salvo Count	P106	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(E)	Evaluate Switch Options and Decide Desired Position C-3	Turn Switch P-2(R)	Rotary - 5 Positions (R-5)	5
Set	Chaff Salvo Interval	P107	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(E)	Evaluate Switch Options and Decide Desired Position C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	5
Set	Chaff Burst Count	P100	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(E)	Evaluate Switch Options and Decide Desired Position C-3	Turn Switch P-2(R)	Rotary - 6 Positions (R-6)	5
Set	Chaff Burst Interval	P101	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(E)	Evaluate Switch Options and Decide Desired Position C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	5



AH-64 FUNCTION ANALYSIS

FUNCTION 045 Check Right Side - Rear Fuselage [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Avionics Bay Door	P069	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2	Close Access Door P-5(R)		10
Check	APU Exhaust	P055	APU (UAP)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			3
Check	IR Suppressor/Engine Exhaust	P353	Engine (EE)	Visually inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			8
Check	Utility Hydraulic Accumulator	P617	Hydraulics (FH)	Visually Inspect Instrument Indication V-2(E)	Verify Readout Correct (2600 PSI Minimum) C-2	Open and Close Door P-5(R)		2
Check	Equipment Stowage Compartment	P217	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Door Secure) C-2			3
Check	External Power Receptacle	P221	Electrical (UEL)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Door Secure) C-2			2
Check	Belly Antennas	P081	Communication (UC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	Alt Tailboom	P017	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Cover Secure) C-2			15
Check	Empennage	P169	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	Stabilator	P546	Flight Control (FC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10

AH-64 FUNCTION ANALYSIS

FUNCTION 045 Check Right Side - Rear Fuselage [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Tail Landing Gear	P567	Gear (FG)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10

# AH-64 FUNCTION ANALYSIS

FUNCTION 046 Check Right Side - Under Fuselage

TOTAL TIME (Approximate) 144.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	Gun Mounting	P286	Weapons (AW)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				20	
Check	Feed Chute	P229	Weapons (AW)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				15	
Check	Searchlight	P530	Lighting (UL)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay C-2				3	
Check	Radar Warning Antenna	P490	Survivability (US)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				3	
Check	Avionics Bay	P068	Communication (UC)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2	Open Access Door P-5(R)			30	
Set	Cur. Burst Limits	P285	Gun Control (AGC)	Visually Scan Switch Position and Monitor Placement of Switch V-3(E)	Evaluate Position Options and Decide Desired Position C-3	Turn Switch P-2(R)	Rotary - 5 Positions (R-5)		3	
Check	Static Port	P554	Flight Instruments (FI)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Unobstructed) C-2				3	
Check	Main Landing Gear	P384	Gear (FG)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				30	
Check	Fire Extinguisher	P236	Safety (S)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Current Data) C-2				5	
Check	Refueling Level Control Valves	P500	Fuel (EF)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Open) C-2				5	

AH-64 FUNCTION ANALYSIS

FUNCTION 046 Check Right Side - Under Fuselage (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	Refueling Valve	P501	Fuel (EF)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Closed/Off) C-2	Open and Close Access Door P-5(R)	Toggle - 2 Positions (T-2)	2		
Check	Fuel Quantity Indicator (External)	P267	Fuel (EF)	Visually Inspect Sight Gauge Indication V-2(E)	Interpret Sensory Readout and Make Judgment (Enough Fuel) C-5	Move Switch On and Off P-1(R)		4		
Check	Refueling Access Door	P499	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Closed) C-2			2		
Check	Forward Gravity Fuel Cap	P251	Fuel (EF)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			2		
Check	Single Point Fuel Access	P543	Fuel (EF)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2	Open and Close Access Door P-5(R)		10		

# AH-64 FUNCTION ANALYSIS

FUNCTION 047 Check Right Side - Wing

TOTAL TIME (Approximate)

119 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Wing	P650	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	Pylons	P482	Airframe (FA)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2			10
Check	HELLFIRE Launcher ARM/SAFE Switch	P307	Weapons (AW)	Visually Inspect Switch Position V-2(E)	Verify Current Position Correct (Safe) C-2		Rockers - 2 Positions (RIK-2)	3
Check	HELLFIRE Launcher Mounting	P308	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			10
Check	HELLFIRE Electrical Connector	P306	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Connected Correctly) C-2			5
Check	HELLFIRE Missile Installation	P309	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Missiles Locked) C-2			10
Check	Rockets Launcher Mounting	P526	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2			10
Check	Rockets Electrical Connector	P522	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Connected Correctly) C-2			5
Check	Rockets Launcher	P525	Weapons (AW)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay C-2			10
Check	Rockets Installation	P524	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Rockets Secure/Number and Zone Correct) C-5			15

# AH-64 FUNCTION ANALYSIS

## FUNCTION 047 Check Right Side - Wing [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Rockets Igniter Arms		P523	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Connected Correctly) C-2				10
Check	Pitot Tube		P459	Flight Instruments (FI)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Unobstructed) C-2				2
Check	Wing Anticollision Light		P651	Lighting (UL)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				2
Check	Wing Navigation Light		P653	Lighting (UL)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				2
Check	Wing Formation Light		P652	Lighting (UL)	Visually Inspect Equipment Condition V-2(E)	Verify Current Condition Okay (Secure) C-2				2
Check	Ammunition Bay Access		P039	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Secure) C-2				5

AH-64 FUNCTION ANALYSIS

FUNCTION 048 Check Security Devices

TOTAL TIME (Approximate)

292.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Aircraft Covers	P021	Ground Security (SG)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Removed) C-2			90*
Check	Locking Devices	P365	Ground Security (SG)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Removed) C-2			90*
Check	Tiedowns	P590	Ground Security (SG)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Removed) C-2			90*
Check	Grounding Cables	P283	Safety (S)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Removed) C-2			18*
Check	Pylon Safety Pins	P481	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Pins Installed) C-2		Push-Pull Pin (PPP)	2

\*The reported time represents an estimate of the average amount of time required to inspect the aircraft security devices; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

FUNCTION 049 Complete TAMMS Forms

TOTAL TIME (Approximate) 211 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Record	Flight Hours	P241	Flight Forms (UF)	Read Forms V-7(I)	Encode and Verify Correct Entry C-4	Complete Forms P-6(R)		30*	
Record	Maintenance Requirements	P390	Flight Forms (UF)	Read Forms V-7(I)	Encode Correct Entry C-4	Complete Forms P-6(R)		180*	

\*The reported time represents an estimate of the average amount of time required to complete the forms; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.



# AH-64 FUNCTION ANALYSIS

FUNCTION 050 Compute Fuel Burn Rate

TOTAL TIME (Approximate)

41.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWTCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Note	Fuel Quantity		G660	Fuel (EF)	Visually Inspect Instrument Indication V-4	Interpret Symbolic Readout (Quantity) and Make Judgment (Enough Fuel) P-5				3
Note	Time		G684	Fuel (EF)	Visually Check Instru. Indication V-4	Verify Correct Readout P-2	Write Information P-5			7
Compute	Fuel Consumption Rate		G659	Fuel (EF)	Read Symbols V-7	Calculate Fuel Consumption Rate C-7				30*

\*The reported time represents an estimate of the average amount of time required to perform the computation; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

FUNCTION 051 Conduct Postflight Walk Around

TOTAL TIME (Approximate)

274 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	Pylon Safety Pins	G481	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Pins Installed) C-2			Push-Pull Pin (PPP)	2	
Inspect	Right Side of Aircraft	G513	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Evaluate Current Status (Any Damage) C-2				90°	
Inspect	Rear Area of Aircraft	G496	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Evaluate Current Status (Any Damage) C-2				90°	
Inspect	Left Side of Aircraft	G363	Airframe (FA)	Visually Inspect Equipment Status V-2(E)	Evaluate Current Status (Any Damage) C-2				90°	

\*The reported time represents an estimate of the average amount of time required to conduct the aircraft inspection; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 052 Consolidate Forces

TOTAL TIME (Approximate) 79 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Remote Transmitter Selector Switch	P505	Communication (UC)	Visually Register Lights V-1(I)	Evaluate Position Options, Decide Correct Channel, and Verify Selection of Correct Channel (Lights Illuminated) C-3	Press Switch (Repeat) P-1(R)	Springloaded Press (SP)	1
Transmit	Weapons Status	P642	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Press - 3 Positions (SP-3)	5
Transmit	Battlefield Intelligence	P080	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Press - 3 Positions (SP-3)	30
Transmit	Aircraft Status	P027	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Press - 3 Positions (SP-3)	5
Release	Radio Transmitter Switch	P680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Press - 3 Positions (SP-3)	5
Receive	Mission Update	P423	Communication (UC)	Receive Auditory Message A-6	Decide Message and Verify Authentication Correct C-5	Record Data P-6(R)		30
Transmit	Acknowledgment	P003	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Press - 3 Positions (SP-3)	3
Release	Radio Transmitter Switch	P680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Press - 3 Positions (SP-3)	5

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time

# AH-64 FUNCTION ANALYSIS

FUNCTION 053 Coordinate Mission

TOTAL TIME (Approximate)

73.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Remote Transmitter Selector Switch	P505	Communication (UC)	Visually Register Lights V-1(I)	Evaluate Position Options, Decide Correct Channel, and Verify Selection of Correct Channel (Lights Illuminated) C-3	Press Switch (Repeat) P-1(R)	Springloaded Press (SP)	1
Transmit	Weapons Status	P642	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Press - 3 Positions (SP-3)	5*
Release	Radio Transmitter Switch	P680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Press - 3 Positions (SP-3)	5
Receive	Battlefield Intelligence	P079	Communication (UC)	Receive Auditory Message A-6	Decode Message and Verify Authentication Correct C-5	Record Data P-6(R)		30*
Receive	Mission Update	P423	Communication (UC)	Receive Auditory Message A-6	Decode Message and Verify Authentication Correct C-5	Record Data P-6(R)		30*
Transmit	Acknowledgment	P003	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Press - 3 Positions (SP-3)	3*
Release	Radio Transmitter Switch	P680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Press - 3 Positions (SP-3)	5

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

FUNCTION 054 Deactivate APU

TOTAL TIME (Approximate) 4 Seconds

TASKS					WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	APU Control Switch	P054	APU (UAP)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)	Safety Toggle - 3 Positions (ST-3)	2	
Check	APU ON Light	P060	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2			1	

# AH-64 FUNCTION ANALYSIS

FUNCTION 055 Designate Target (Autonomous)

TOTAL TIME (Approximate)

13.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Monitor	HAD Message (TOF)		G296	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Make Judgment (Time to Lase) C-5				5
Pull	Laser Trigger		G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)		1
Note	Weapon Impact		G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5				5
Release	Laser Trigger		G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)		5

# AH-64 FUNCTION ANALYSIS

FUNCTION 056 Designate Target (Image Autotracker Offset)

TOTAL TIME (Approximate)

16.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Monitor	HAD Message (TOF)	G296	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Make Judgment (Time to Lose) C-5			5
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Set	IAT OFS Switch	G320	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L/V-1(I))	Evaluate Sensory Feedback and Verify Correct Position (Switch Disengaged) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Note	Weapon Impact	G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	5
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L/V-1(I))	Evaluate Sensory Feedback and Verify Correct Status (Gates Disappear) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 057 Enter Fire Control Data

TOTAL TIME (Approximate)

740.5 Seconds\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (SPI) C-3	Turn Switch F-2(L)		Rotary - 7 Positions (R-7)	2
Enter	Time into DEK	G592	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode Correct Entry (Current Time) C-4	Type Entry P-7(L)		Springloaded Press - Alphanumeric Functions (SP-AN)	10
Enter	PPCS	G468	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode Correct Entry (Position Coordinates) C-4	Type Entry P-7(L)		Springloaded Press - Alphanumeric Functions (SP-AN)	20
Enter	Field Elevation	G230	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Present Elevation) C-4	Type Entry P-7(L)		Springloaded Press - Alphanumeric Functions (SP-AN)	10
Enter	Page #2 of SPI	G452	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Make Conditioned Association (Page #2) C-1	Press Enter Key P-1(L)		Springloaded Press (SP)	1
Enter	DEK Spheroid Data	G148	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Spheroid) C-4	Type Entry P-7(L)		Springloaded Press - Alphanumeric Functions (SP-AN)	15
Enter	DEK Magnetic Variation	G144	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Magnetic Variation) C-4	Type Entry P-7(L)		Springloaded Press - Alphanumeric Functions (SP-AN)	15

\*The reported time is based on the total time required to enter the coordinates for ten targets.



AH-64 FUNCTION ANALYSIS

FUNCTION 057 Enter Fire Control Data [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Enter	Grid Convergence	G282	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Grid Convergence) C-4	Type Entry P-7(L)		Springloaded Press - Alphanumeric Functions (SP-AN)	15
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TGT) C-3	Turn Switch P-2(L)		Rotary - 7 Positions (R-7)	2
Enter	Mission Preplanning Coordinates	G422	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode Correct Entry (Mission Coordinates) C-4	Type Entry P-7(L)		Springloaded Press - Alphanumeric Functions (SP-AN)	300*
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (CODE) C-3	Turn Switch P-2(L)		Rotary - 7 Positions (R-7)	2
Enter	DEK LASER Codes	G143	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Codes) C-4	Type Entry P-7(L)		Springloaded Press - Alphanumeric Functions (SP-AN)	300*
Set	LRF/D Code Indicator	G371	Laser (AL)	Visually Monitor Code Indication V-3(I)	Decide Correct Code C-3	Press Switch P-2(L)		2 Directional Springloaded Press - 9 Positions Each (DSP-9)	10
Set	UPR CHAN Laser Code	G613	Missile Control (AMC)	Visually Monitor Code Indication V-3(I)	Decide Correct Code C-3	Press Switch P-2(L)		2 Directional Springloaded Press - 9 Positions Each (DSP-9)	10

\*The reported time is based on the total time required to enter the coordinates for ten targets.

AH-64 FUNCTION ANALYSIS

FUNCTION 057 Enter Fire Control Data [Continued]

TASKS			WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	UPR CHAN Quantity	G615	Missile Control (AMC)	Visually Monitor Quantity Indication V-3(I)	Decide Correct Quantity C-3	Press Switch P-2(L)	2 Directional Springloaded Press - 3 Positions Each (DSP-3)	5
Set	LWR CHAN Laser Code	G379	Missile Control (AMC)	Visually Monitor Code Indication V-3(I)	Decide Correct Code C-3	Press Switch P-2(L)	2 Directional Springloaded Press - 9 Positions Each (DSP-9)	10
Set	LWR CHAN Quantity	G381	Missile Control (AMC)	Visually Monitor Quantity Indication V-3(I)	Decide Correct Quantity C-3	Press Switch P-2(L)	2 Directional Springloaded Press - 3 Positions Each (DSP-3)	5

AH-64 FUNCTION ANALYSIS

FUNCTION 058 Enter Target Data

TOTAL TIME (Approximate)

30.5 Seconds\*

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	DEK Data Entry Selector Switch		G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(i)	Evaluate Position Options and Decide Correct Position (TGT) C-3	Turn Switch P-2(L)		Rotary - 7 Positions (R-7)	2
Enter	Target Index Number		G581	Fire Control Computer (AFC)	Visually Monitor Switch Indication V-3(i)	Decide and Verify Correct Number (0 - 9) C-4	Press Switch P-2(L)		2 Directional Springloaded Press - 9 Positions Each (DSP-9)	4
Enter	Target Coordinates		G580	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(i)	Encode and Verify Correct Entry (Coordinates) C-4	Type Entry P-7(L)		Springloaded Press - Alphabetic Functions (SP-AN)	10*
Set	DEK Data Entry Selector Switch		G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(i)	Evaluate Position Options and Decide Correct Position (STBY) C-3	Turn Switch P-2(L)		Rotary - 7 Positions (R-7)	2
Set	TGT/NAV Index Code		G588	Fire Control Computer (AFC)	Visually Monitor Switch Indication V-3(i)	Identify and Verify Correct Code C-3	Press Switch P-2(L)		2 Directional Springloaded Press - 9 Positions Each (DSP-9)	2
Check	ACQ SEL Switch (G)		G006	Sensor Control (VSC)	Visually Inspect Switch Position V-2(i)	Verify Current Position Correct (TGT) C-2			Rotary - 7 Positions (5 Functional) (R-7)	2
Set	SLAVE Switch		G544	Sensor Control (VSC)	Feel Control Movement/Visually Detect Sensor Images K-2(R)/V-1(i)	Verify Correct Image (Slave Engaged) C-2	Press Switch P-1(R)		Springloaded Press - 2 Positions (SP-2)	1
Set	SLAVE Switch		G544	Sensor Control (VSC)	Feel Control Movement/Visually Detect Sensor Images K-2(R)/V-1(i)	Verify Correct Image (Slave Disengaged) C-2	Press Switch P-1(R)		Springloaded Press - 2 Positions (SP-2)	1

\*The reported time is based on the time required to enter the coordinates for a single target.

# AH-64 FUNCTION ANALYSIS

FUNCTION 058 Enter Target Data (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Set	ACQ SEL Switch (G)	G007	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (FXD) C-3	Turn Switch F-2(L)	Rotary - 7 Positions (5 Functional) (R-7)	2	

# AH-64 FUNCTION ANALYSIS

FUNCTION 059 Establish Approach

TOTAL TIME (Approximate)

Continuous\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Flight Mode Symbolology Switch	P244	Symbol Generator (ASG)	Feel Switch Movement/ Visually Discriminate Flight Symbols K-2(R)/V-6(I)	Evaluate Symbolology Options, Decide and Verify Correct Symbolology (Transition) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	2
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movement/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Decrease	Power	P678	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movement/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		1
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movement/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Attitude	P065	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movement/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Check	Vertical Situation Indicator (Inflight)	P686	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movement/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Rate of Descent	P494	Flight Control (FC)	Feel Control Movement/ Visually Detect Aircraft Movement and Monitor Instrument Indications K-4(B)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		.5*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence  
 \*\*The function "Establish Approach" is a continuous function whose length may vary with the specific segment in which it occurs.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 059 Establish Approach (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Airspeed Indicator (Inflight)	P654	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Airspeed	P031	Flight Control (FC)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(B)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		.5*
Check	Heading Indicator (Inflight)	P663	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Heading	P304	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Control	Drift	P160	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.

AH-64 FUNCTION ANALYSIS

FUNCTION 060 Establish Climb

TOTAL TIME (Approximate)

Continuous\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Flight Mode Symbolology Switch	P244	Symbol Generator (ASG)	Feel Switch Movement/ Visually Discriminate Flight Symbols K-2(R)/V-6(I)	Evaluate Symbolology Options; Decide and Verify Correct Symbolology (Cruise) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	2
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movement/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Increase	Power	P679	Flight Control/ External Visual Field (FC/VE-X)	Feel Control Movement/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		1
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movement/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Altitude	P065	Flight Control/ External Visual Field (FC/VE-X)	Feel Control Movement/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5*
Check	Vertical Situation Indicator (Inflight)	P686	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movement/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Rate of Climb	P493	Flight Control/ (FC)	Feel Control Movement/ Visually Detect Aircraft Movement K-4(B)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		5*
Check	Airspeed Indicator (Inflight)	P654	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movement/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.

\*\*The function "Establish Climb" is a continuous function whose length may vary with the specific segment in which it occurs.

AH-64 FUNCTION ANALYSIS

FUNCTION 060 Establish Climb [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Airspeed	P031	Flight Control (FC)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(B)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		.5*
Check	Heading Indicator (Inflight)	P663	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Heading	P304	Flight Control/ External Visual Field (FC/EX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence



AH-64 FUNCTION ANALYSIS

FUNCTION 061 Establish Level of Flight

TOTAL TIME (Approximate)

Continuous\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Flight Mode Symbolology Switch	P244	Symbol Generator (ASG)	Feel Switch Movement/ Visually Discriminate Flight Symbols K-2(R)/V-6(I)	Evaluate Symbolology Options; Decide and Verify Correct Symbolology (Cruise) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	2
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Decrease	Power	P678	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		1
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Note	Fuel Quantity	G660	Fuel (EF)	Visually Inspect Instrument Indication V-2(I)	Interpret Symbolic Readout (Quantity) C-4	Write Amount P-7(R)		7
Note	Time	G684	Flight Instruments (FI)	Visually Inspect Instrument Indication V-2(I)	Interpret Symbolic Readout (Time) C-4	Write Time P-7(R)		7
Control	Altitude	P065	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5*
Check	Altimeter (Inflight)	P655	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence  
 \*\*The function "Establish Level of Flight" is a continuous function whose length may vary with the specific segment in which it occurs.

AH-64 FUNCTION ANALYSIS

FUNCTION 061 Establish Level of Flight [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Altitude	P036	Flight Control/ External Visual Field (FC/VE)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Check	Airspeed Indicator (Inflight)	P654	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Airspeed	P031	Flight Control (FC)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(B)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		.5*
Check	Heading Indicator (Inflight)	P663	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Heading	P304	Flight Control/ External Visual Field (FC/VE)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence

AH-64 FUNCTION ANALYSIS

FUNCTION 062 Evaluate Position

TOTAL TIME (Approximate)

113.5 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	VDU Control Switch	P622	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (Gunner) C-3	Turn Switch P-2(L)	Rotary - 4 Positions (R-4)	1
Check	Aircraft Location (G)	G024	Sensor Display/ Maps/Navigation Display (VSD/NM/ND)	Visually Scan Sensor Display and Read Map Symbols V-7(I)	Interpret Map Symbols, Identify Objects and Sensor Images, and Make Judgment (Location Correct) C-6	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	30*
Check	Aircraft Location (P)	P026	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Location Correct) C-5			30*
Check	Battle Area Access (G)	G077	Sensor Display/ Maps (VSD/NM)	Visually Scan Sensor Display and Read Map Symbols V-7(I)	Interpret Map Symbols, Identify Objects and Sensor Images, and Make Judgment (Line of Sight Adequate) C-6	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	30*
Check	Battle Area Access (P)	P078	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Line of Sight Adequate) C-5			30*
Survey	Aircraft Surroundings (P)	P029	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Area Safe) C-5			30*
Survey	Aircraft Surroundings (G)	G028	Sensor Display (VSD)	Visually Scan Sensor Display V-3(I)	Identify Objects and Sensor Images and Make Judgment (Area Safe) C-5	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	30*
Check	Obstacles (P)	P441	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects C-2			20*

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

\*\*The total time for this function is based on the concurrent performance of certain tasks by both crewmembers.

# AH-64 FUNCTION ANALYSIS

FUNCTION 062 Evaluate Position (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Check	Obstacles (G)	G440	Sensor Display (VSD)	Visually Scan Sensor Display V-3(I)	Identify Objects and Sensor Images C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	20*	

\*The reported time for this task represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 063 Fire Weapon, Gun (Gunner)

TOTAL TIME (Approximate)

9.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	HAD Message (Gun)	G289	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Gun Limit) C-4					1
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(L)		Springloaded Trigger (SPTR)		1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)		Springloaded Trigger (SPTR)		.5
Note	Weapon Impact	G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5					5

AH-64 FUNCTION ANALYSIS

FUNCTION 064 Fire Weapon, Gun (Gunner, Laser Range)

TOTAL TIME (Approximate)

15.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	5
Check	HAD Message (Range)	G292	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Range) C-4			2
Check	HAD Message (Rounds)	G294	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Number of Rounds) C-4			2
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	5
Note	Weapon Impact	G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5

# AH-64 FUNCTION ANALYSIS

FUNCTION 065 Fire Weapon, Gun (Pilot)

TOTAL TIME (Approximate)

9.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	HAD Message (Gun)	P289	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Gun Limit) C-4			1
Pull	Weapons Trigger	P643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(L)	Springloaded Trigger (SPTR)	1
Release	Weapons Trigger	P644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	.5
Note	Weapon Impact	P639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5

# AH-64 FUNCTION ANALYSIS

FUNCTION 066 Fire Weapon, Missile

TOTAL TIME (Approximate) 5.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Verify	Firing Constraints	G239	Sensor Display (VSD)	Visually Inspect Alignment V-2(I)	Evaluate Sensory Feedback and Verify Constraints Met C-2			1
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1
Verify	Missile Launch	G417	Fire Control Computer/ Sensor Display (AFCVSD)	Visually Detect Image V-1(I)	Verify Correct Status (Missile Launched) C-2			1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	.5



AH-64 FUNCTION ANALYSIS

FUNCTION 067 Fire Weapon, Missile (LOBL)

TOTAL TIME (Approximate)

15 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	HAD Message (Tracking)	G297	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Channel Tracking) C-4			1
Verify	Firing Constraints	G239	Sensor Display (VSD)	Visually Inspect Alignment V-2(I)	Evaluate Sensory Feedback and Verify Constraints Met C-2			1
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1
Verify	Missile Launch	G417	Fire Control Computer/ Sensor Display (AFC/VSD)	Visually Detect Image V-1(I)	Verify Correct Status (Missile Launched) C-2			1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	5
Note	Weapon Impact	G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	5

AH-64 FUNCTION ANALYSIS

FUNCTION 068 Fire Weapon, Missile (LOBL Offset)

TOTAL TIME (Approximate) 22 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	HAD Message (Tracking)	G297	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Current Status (Channel Tracking) C-4			1
Verify	Firing Constraints	G239	Sensor Display (VSD)	Visually Inspect Alignment V-2(I)	Evaluate Sensory Feedback and Verify Constraints Met C-2			1
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1
Verify	Missile Launch	G417	Fire Control Computer/ Sensor Display (AFC/VSD)	Visually Detect Image V-1(I)	Verify Correct Status (Missile Launched) C-2			1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	5
Monitor	HAD Message (TCF)	G298	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Make Judgment (Time to Lose) C-5			5
Set	IAT OFS Switch	G320	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Sensory Feedback and Verify Correct Position (IAT OFS Disengaged) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Note	Weapon Impact	G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5

# AH-64 FUNCTION ANALYSIS

FUNCTION 068 Fire Weapon, Missile (LOBL Offset) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	.5

AH-64 FUNCTION ANALYSIS

FUNCTION 069 Fire Weapon, Missile, Rapid Fire (LOAL)

TOTAL TIME (Approximate) 77 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L/V-1(I))	Evaluate Position Options, Decide Correct Position (W), and Verify Correct Image C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/ Visually Track Sensor Images K-5(R/V-5(I))	Evaluate Images C-5	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	20
Detect	Feature	G227	Sensor Display (VSD)	Visually Detect Sensor Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Potential Target) C-5			2
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R/V-4(I))	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L/V-1(I))	Evaluate Position Options, Decide Correct Position (N), and Verify Correct Image C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R/V-4(I))	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Identify	Target	G578	Sensor Display (VSD)	Visually Discriminate Sensor Images V-3(I)	Evaluate Sensory Information and Make Judgment (Enemy Target) C-6			5
Verify	Firing Constraints	G239	Sensor Display (VSD)	Visually Inspect Alignment V-2(I)	Evaluate Sensory Feedback and Verify Constraints Met C-2			1
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 069 Fire Weapon, Missile, Rapid Fire (LOAL) (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Verify	Missile Launch	G417	Fire Control Computer/Sensor Display (AFC/VSD)	Visually Detect Image V-1(I)	Verify Correct Status (Missile #1 Launched) C-2			1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	.5
Check	HAD Message (Missile)	G290	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Fire Missile) C-4			1
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1
Verify	Missile Launch	G417	Fire Control Computer/Sensor Display (AFC/VSD)	Visually Detect Image V-1(I)	Verify Correct Status (Missile #2 Launched) C-2			1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	.5
Check	HAD Message (TOF)	G295	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Make Judgment (Time to Lose) C-5			5
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Note	Weapon Impact	G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5

AH-64 FUNCTION ANALYSIS

FUNCTION 069 Fire Weapon, Missile, Rapid Fire (LOAL) (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	5
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/ Visually Align Feature K-5(R)/V-4(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Check	HAD Message (TOF)	G295	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Make Judgment (Time to Lose) C-5			5
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Life Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Note	Weapon Impact	G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	5

AH-64 FUNCTION ANALYSIS

FUNCTION 070 Fire Weapon, Missile, Ripple Fire (LOAL) TOTAL TIME (Approximate) 41.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Verify	Firing Constraints	G239	Sensor Display (VSD)	Visually Inspect Alignment V-2(I)	Evaluate Sensory Feedback and Verify Constraints Met C-2			1
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1
Verify	Missile Launch	G417	Fire Control Computer/ Sensor Display (AFC/VSD)	Visually Detect Image V-1(I)	Verify Correct Status (Missile #1 Launched) C-2			1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	.5
Set	SLAVE Switch	G554	Sensor Control (VSC)	Feel Control Movement/ Visually Detect Sensor Images K-2(R/VV-1(I))	Verify Correct Images (Slave Engaged) C-2	Press Switch P-1(R)	Springloaded Press - 2 Positions (SP-2)	1
Check	HAD Message (Missile)	G290	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Fire Missile) C-4			1
Check	AND Display (Priority)	G046	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Priority Correct) C-4			1
Verify	Firing Constraints	G239	Sensor Display (VSD)	Visually Inspect Alignment V-2(I)	Evaluate Sensory Feedback and Verify Constraints Met C-2			1
Pull	Weapons Trigger	G643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 070 Fire Weapon, Missile, Ripple Fire (LOAL) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Verify	Missile Launch	G417	Fire Control Computer/Sensor Display (AFC/VSD)	Visually Detect Image V-1(I)	Verify Correct Status (Missile #2 Launched) C-2			1
Release	Weapons Trigger	G644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	.5
Check	HAD Message (TOF)	G295	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Make Judgment (Time to Lose) C-5			5
Transmit	Remote Request	G503	Communication (UC)	Receive Speech Feedback A-4	Encode Message for Missile (#1) C-4	Press Switch and Speak P-3(R)	Springloaded Press - 2 Positions (SP-2)	4
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/Visually Align Feature K-5(R/V-4(I))	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-2(R)	Thumbwheel Rheostat (T-R)	2
Check	HAD Message (TOF)	G295	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Make Judgment (Time to Lose) C-5			5
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Note	Weapon Impact	G639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			2
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	.5



AH-64 FUNCTION ANALYSIS

FUNCTION 071 Fire Weapon, Rocket

TOTAL TIME (Approximate)

10.5 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Verify	Rocket Steering Cursor Aligned	P519	Sensor Display (VSD)	Visually Inspect Sensor Display V-2(I)	Evaluate Sensory Feedback and Verify Firing Constraints Met C-2			1
Pull	Weapons Trigger	P643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTA)	1
Release	Weapons Trigger	P644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTA)	.5
Note	Weapon Impact	P639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5
Set	Cyclic WAS Switch	P135	Weapons (AW)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (Deselect) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	5

AH-64 FUNCTION ANALYSIS

FUNCTION 072 Fire Weapon, Rocket (Cooperative)

TOTAL TIME (Approximate)

15.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	5
Check	H/AID Message (Range)	B292	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Range) C-4			2
Verify	Rocket Steering Cursor Aligned	P519	Sensor Display (VSD)	Visually Inspect Sensor Display V-2(I)	Evaluate Sensory Feedback and Verify Firing Constraints Met C-2			1
Pull	Weapons Trigger	P643	Weapons (AW)	Feel Trigger Movement K-2(L)	Verify Correct Position (Trigger Activated) C-2	Lift Cover and Pull Trigger P-1(L)	Springloaded Trigger (SPTR)	1
Release	Weapons Trigger	P644	Weapons (AW)	Feel Trigger Movement K-2(L)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(L)	Springloaded Trigger (SPTR)	5
Note	Weapon Impact	B639	Sensor Display (VSD)	Visually Detect Image V-1(I)	Evaluate Sensory Feedback and Make Judgment (Target Destroyed) C-5			5
Set	Cyclic WAS Switch	P135	Weapons (AW)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (Deselect) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	5

AH-64 FUNCTION ANALYSIS

FUNCTION 073 Fly Contour

TOTAL TIME (Approximate)

Continuous\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Altitude	P065	Flight Control/ External Visual Field (FC/VE)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Check	Altimeter (Inflight)	P655	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Altitude	P035	Flight Control/ External Visual Field (FC/VE)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Check	Airspeed Indicator (Inflight)	P654	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Airspeed	P031	Flight Control (FC)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(B)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		.5*
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Power	P466	Flight Control/ External Visual Field (FC/VE)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Check	Heading Indicator (Inflight)	P663	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*

\*\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence

\*\*The function "Fly Contour" is a continuous function whose length may vary with the specific segment in which it occurs.

AH-64 FUNCTION ANALYSIS

FUNCTION 073 Fly Contour (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Adjust	Heading	P304	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Check	Trim Ball (Inflight)	P685	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(F)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(F)		1*
Adjust	Trim	P600	Flight Control (FC)	Feel Control Movements K-4(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)		.5*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence

# AH-64 FUNCTION ANALYSIS

FUNCTION 074 Fly NOE

TOTAL TIME (Approximate)

Continuous\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Altitude	P065	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Check	Altimeter (Inflight)	P655	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Altitude	P035	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Check	Airspeed Indicator (Inflight)	P654	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Airspeed	P031	Flight Control (FC)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(B)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		.5*
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Adjust	Power	P466	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Check	Heading Indicator (Inflight)	P663	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.

\*\*The function "Fly Contour" is a continuous function whose length may vary with the specific segment in which it occurs.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 074 Fly NOE (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Adjust	Heading	P304	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*	
Check	Trim Ball (Inflight)	P685	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(F)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(F)		1*	
Adjust	Trim	P600	Flight Control (FC)	Feel Control Movements K-4(F)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)		.5*	

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.

# AH-64 FUNCTION ANALYSIS

FUNCTION 075 Hover Masked

TOTAL TIME (Approximate)

Continuous\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Flight Mode Symbolology Switch	P244	Symbol Generator (ASG)	Feel Switch Movement/ Visually Recognize Flight Symbols K-2(R/VV-2(I))	Evaluate Symbolology Options, Decide and Verify Correct Symbolology (Bob-up) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	2
Set	ATTD/Hover Hold Switch	P064	Flight Control (FC)	Visually Scan Switch Position and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	2
Control	Altitude	P036	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement and Monitor Instrument Indications K-4(L/VV-1(E))	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		5
Control	Altitude	P065	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement and Monitor Instrument Indications K-4(R/VV-1(E))	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5
Control	Heading	P305	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement and Monitor Instrument Indications K-4(F/VV-1(E))	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)		5
Maintain	Obstacle Clearance	P439	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R/VV-1(E))	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5
Control	Drift	P160	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R/VV-1(E))	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.

\*\*The function "Hover Masked" is a continuous function whose length may vary with the specific segment in which it occurs.

# AH-64 FUNCTION ANALYSIS

FUNCTION 076 Hover Unmasked

TOTAL TIME (Approximate)

Continuous\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Control	Altitude	P036	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Control	Drift	P160	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Control	Heading	P305	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement and Monitor Instrument Indicators K-4(F)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)		.5*
Check	Weapon Path	P640	External Visual Field (VEX)	Visually Search External Field of View V-3	Verify Weapons Path Clear C-2			.5*
Maintain	Obstacle Clearance	P439	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R)/V-4(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Monitor	Time (Inflight)	P591	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)/V-2(I)	Note Amount of Time and Make Judgment (Too Much Time) C-5	Control Pressure P-4(B)		.5*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence  
 \*\*The function "Hover Unmasked" is a continuous function whose length may vary with the specific segment in which it occurs.



# AH-64 FUNCTION ANALYSIS

FUNCTION 077 Idle Engines

TOTAL TIME (Approximate) 6 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Monitor	TGT	P587	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (TGT Decreasing Normally) C-2			(v)*

\*The length of time for this task may vary with the specific function in which it occurs.

AH-64 FUNCTION ANALYSIS

FUNCTION 078 Initial Cockpit Communication (Gunner)

TOTAL TIME (Approximate)

7 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Transmit	Cockpit Communication	G124	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)		Springloaded Toggle - 3 Positions (SPT-3)	3*
Receive	Cockpit Communication	P123	Communication (UC)	Receive Auditory Message A-6	Decode Message				3*
Transmit	Cockpit Communication	P124	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)		Springloaded Toggle - 3 Positions (SPT-3)	3*
Receive	Cockpit Communication	G123	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4				3*

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

\*\*The total time is based on the concurrent performance of certain tasks by both crewmembers.

# AH-64 FUNCTION ANALYSIS

FUNCTION 070 Initiate Cockpit Communication (Priority)

TOTAL TIME (Approximate)

7 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Transmit	Cockpit Communication	P124	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3*
Receive	Cockpit Communication	G123	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4			3*
Transmit	Cockpit Communication	G124	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3*
Receive	Cockpit Communication	P123	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4			3*

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

\*\*The total time is based on the concurrent performance of certain tasks by both crewmembers.

AH-64 FUNCTION ANALYSIS

FUNCTION 080 Land Aircraft

TOTAL TIME (Approximate)

14 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Maintain	Obstacle Clearance	P439	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R)/V-4(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Adjust	Power	P466	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		.5*
Control	Altitude	P065	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Control	Heading	P305	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Control	Drift	P160	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		.5*
Perform	Touchdown	P593	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Orient Aircraft K-4(B)/V-4(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		3*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.  
 \*\*The reported time represents an estimate of the average amount of time required to land the aircraft; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

## AH-64 FUNCTION ANALYSIS

FUNCTION 081 Load Weapons (Rearming)

TOTAL TIME (Approximate)

949 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	MASTER ARM Switch	P396	Weapons (AW)	Visually Inspect Switch Position and Check Light V-2(I)	Verify Current Position Correct (Safety Light Illuminated) C-2		Toggle - 3 Positions (T-3)	1
Set	TAIL WHEEL Switch	P573	Gear (FG)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Locked) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	1
Set	Park Brake	P455	Brakes (FB)	Feel Brake Position K-1(F)	Decide and Verify Correct Position (Locked) C-3	Push Toe Brakes P-2(F)	Directional Foot Press (FP)	2
Set	Brake Lever	P658	Brakes (FB)	Visually Locate Lever V-4(I)	Make Conditioned Association (Lever Set) C-1	Pull Handle P-2(R)	Push-Pull Handle (PPH)	1
Check	Pylon Safety Pins	G481	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Pins Installed) C-2		Push-Pull Pin (PPP)	2
Check	PLT/GND ORIDE Switch	G461	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 2 Positions (ST-2)	1
Check	Grounding Cables	G283	Safety (S)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Installed) C-2			18
Monitor	Weapons Loading	G641	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Loading Complete) C-2			
Check	Grounding Cables	G283	Safety (S)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Removed) C-2			18

\*The reported time represents an estimate of the average amount of time required to load the weapons; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

\*\*The total time is based on the concurrent performance of certain tasks by both crewmembers.

AH-64 FUNCTION ANALYSIS

FUNCTION 081 Load Weapons (Rearming) [Continued]

TOTAL TIME (Approximate)

949 Seconds\*\*

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Pylon Safety Pins		G481	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Pins Removed) C-2			Push-Pull Pin (PPP)	2

# AH-64 FUNCTION ANALYSIS

FUNCTION 002 Mask Aircraft

TOTAL TIME (Approximate)

11 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	ATTN/Hover Hold Switch	P084	Flight Control (FC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (C/F) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	2
Establish	Masking Profile	P395	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Orient Aircraft K-4(B)/V-4(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		3
Maintain	Obstacle Clearance	P439	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R)/V-4	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5
Control	Altitude	P036	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement and Monitor Instrument Indications K-4(L)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		5
Control	Attitude	P065	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement and Monitor Instrument Indications K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5
Control	Heading	P305	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement and Monitor Instrument Indications K-4(F)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)		5
Control	Drift	P160	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.

\*\*The reported time represents an estimate of the average amount of time required to mask the aircraft; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time

# AH-64 FUNCTION ANALYSIS

FUNCTION 083 Monitor Audio

TOTAL TIME (Approximate)

Continuous\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Monitor	Audio	B066	Communication/ Survivability (UC/US)	Orient to Sound A-1	S-R Association C-1			c

\*The function "Monitor Audio" is a continuous function whose length may vary with the specific segment in which it occurs; the length of the task "Monitor Audio," in turn, is determined by the length of the function.



AH-64 FUNCTION ANALYSIS

FUNCTION 084 Monitor Threat

TOTAL TIME (Approximate) 3.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Direction Display	P148	Survivability (US)	Detect Visual Image V-1(I)	Recognize Visual Signal (Threat Present) C-2			3

# AH-64 FUNCTION ANALYSIS

FUNCTION 085 Perform After Landing Check

TOTAL TIME (Approximate)

25.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	TAILWHEEL Switch	P573	Gear (FG)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Unlock) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	1
Check	UHF Mode Selector Switch	P607	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (MANUAL) C-2		Rotary - 3 Positions (R-3)	1
Set	UHF Frequency Selector Switches	P606	Communication (UC)	Visually Monitor Switch Indications V-3(I)	Decide and Verify Desired Frequencies C-3	Turn Switches P-2(R)	5 Rotary - Continuous (R-CN)	10
Check	VHF Mode Selector Switch	P627	Communication (UC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (MAN) C-2		Rotary - 4 Positions (R-4)	1
Set	VHF Frequency Selector Switches	P626	Communication (UC)	Visually Monitor Switch Indication V-3(I)	Decide Desired Frequencies C-3	Turn Switches P-2(R)	4 Rotary - Continuous (R-CN)	10

AH-64 FUNCTION ANALYSIS

FUNCTION 006 Perform After Starting APU Check (Gunner) TOTAL TIME (Approximate) 36 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	VHF Control Switch	G625	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TR) C-3	Turn Switch P-2(R)	Rotary - 3 Positions (R-3)	1
Set	VHF Frequency Selector Switches	G626	Communication (UC)	Visually Monitor Switch Indications V-3(I)	Decide Desired Frequencies C-3	Turn Switches P-2(R)	4 Rotary - Continuous (R-CN)	10
Set	VHF Mode Selector Switch	G628	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (MAN) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	2
Set	VHF Volume Switch	G629	Communication (UC)	Visually Monitor Switch Movement/Discriminate Sound V-3(I)/A-5	Decide Desired Level C-3	Turn Switch P-2(R)	Rotary - Rheostat (R-R)	2
Set	KY58 Power Switch	G357	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Turn Switch P-2(R)	Rotary - 3 Positions (R-3)	1
Set	AUSS Switch	G014	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	2
Set	FC SYM GEN Switch	G224	Symbol Generator (ASG)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	IHADSS Switch	G337	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1

# AH-64 FUNCTION ANALYSIS

FUNCTION 086 Perform After Starting APU Check (Gunner) [Continued]

TASKS				WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	TADS Switch	G564	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TADS) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Check	RKT SEL Switch	G514	Rocket Control (ARC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	GUN SEL Switch	G287	Gun Control (AGC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	MSL SEL Switch	G424	Missile Control (AMC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	LSR SEL Switch	G373	Laser (AL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Position	Canopy Door	G093	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(I)	Verify Correct Status (Closed) C-2	Move Door P-5(R)		4

## AH-64 FUNCTION ANALYSIS

FUNCTION 097 Perform After Starting APU Check (Pilot) TOTAL TIME (Approximate) 149 Seconds

TASKS				WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	PNVS Switch	P465	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	1	
Set	Standby Attitude Indicator	P549	Flight Instruments (FI)	Visually Scan Instrument and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Indicator Uncaged and Aligned) C-3	Pull, Release, and Turn Knob P-2(R)	Pull-Turn Knob (PTK)	2	
Set	VDU Control Switch	P622	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (Test) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	1	
Adjust	VDU Brightness/Contrast	P620	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switches P-2(R)	2 Rotary - Rheostat (R-R)	5	
Set	VDU Control Switch	P622	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (PLT) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	1	
Adjust	RAD ALT Switches	P484	Flight Instruments (FI)	Visually Monitor Switch Movement V-3(I)	Evaluate Position Options and Decide Desired Settings (High-Low) C-3	Turn Switches P-2(R)	2 Rotary - Continuous (R-CN)	15	
Set	AN/APR 39	P040	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (On) C-3	Turn Switch P-2(R)	Rotary - Rheostat (R-R)	2	
Set	Transmitter Selector Switch	P597	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (5) C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	1	

# AH-64 FUNCTION ANALYSIS

## FUNCTION 087 Perform After Starting APU Check (Pilot) [Continued]

TASKS			WORKLOAD COMPONENTS				DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR	
Check	Remote Transmitter Selector Switch	P504	Communication (UC)	Visually Register Lights V-1(I)	Verify Radio Selection Changes (Lights Illuminated) C-2	Press Switch (Repeat) P-1(R)	3
Set	KY58 Power Switch	P357	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Turn Switch P-2(R)	1
Set	UHF Control Switch	P605	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (MAIN) C-3	Turn Switch P-2(R)	2
Set	UHF Mode Selector Switch	P608	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (MANUAL) C-3	Turn Switch P-2(R)	1
Set	UHF Frequency Selector Switches	P606	Communication (UC)	Visually Monitor Switch Indications V-3(I)	Decide and Verify Desired Frequencies C-3	Turn Switches P-2(R)	10
Set	UHF Volume Switch	P609	Communication (UC)	Visually Monitor Switch Movement/Discriminate Sound V-3(I)/A-5	Decide Desired Level C-3	Turn Switch P-2(R)	2
Set	VHF Control Switch	P625	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TR) C-3	Turn Switch P-2(R)	1
Set	VHF Mode Selector Switch	P628	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (MAN) C-3	Turn Switch P-2(R)	2
Set	VHF Frequency Selector Switches	P626	Communication (UC)	Visually Monitor Switch Indications V-3(I)	Decide Desired Frequencies C-3	Turn Switches P-2(R)	10

AH-64 FUNCTION ANALYSIS

FUNCTION 087 Perform After Starting APU Check (Pilot) (Continued)

TASKS				WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	VHF Volume Switch	P629	Communication (UC)	Visually Monitor Switch Movement/Discriminate Sound V-3(I)/A-5	Decide Desired Level C-3	Turn Switch P-2(R)	Rotary - Rheostat (R-R)	2	
Set	KY28 Power Switch	P355	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(R)	Toggle - 2 Positions (T-2)	1	
Set	Transponder Control Switch	P599	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (STBY) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	2	
Set	ADF Control Switch	P011	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ANT) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	2	
Check	ADF Operation	P012	Navigation Control (NC)	Visually Monitor Switch Movement/Discriminate Sound V-3(I)/A-5	Verify Needle Swing C-2	Turn Switch P-2(R)	Rotary - Continuous (R-CN)	10	
Position	Canopy Door	P093	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(I)	Verify Correct Status (Closed) C-2	Move Door P-5(R)		4	
Check	Control Sweep and Force Trim System/Cyclic	P127	Flight Control (FC)	Feel Control Movements K-4(R)	Make Conditioned Association (Full Motion) C-1	Move Cyclic P-4(R)	Toggle - 3 Positions (T-3)	10	
Check	Control Sweep and Force Trim System/Pedals	P128	Flight Control (FC)	Feel Control Movements K-4(F)	Make Conditioned Association (Full Motion) C-1	Move Pedals P-2(F)	Toggle - 3 Positions (T-3)	8	

AH-64 FUNCTION ANALYSIS

FUNCTION 087 Perform After Starting APU Check (Pilot) [Continued]

TASKS				WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Control System/Collective	P129	Flight Control (FC)	Feel Control Movements K-4(L)	Make Conditioned Association (Full Motion) C-1	Move Collective P-4(L)		5
Check	Stabilator Manual Control Switch	P547	Flight Control (FC)	Visually Monitor Switch Movement V-3(I)	Make Conditioned Association (Full Range) C-1	Move Switch and Press Reset P-1(R)	Toggle - 3 Positions (T-3)	30
Set	HARS Control Switch	P302	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (FAST/NORM) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	1



AH-64 FUNCTION ANALYSIS

FUNCTION 088 Perform Aircraft Position Update

TOTAL TIME (Approximate) 47.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	TGT/NAV Index Code	G588	Fire Control Computer (AFC)	Visually Monitor Switch Indication V-3(I)	Identify and Verify Correct Code C-3	Press Switch P-2(L)	2 Directional Springloaded Press - 9 Positions Each (DSP-9)	2
Check	SAFE/ARM Indicator Light	G529	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			5
Check	LRFD CODE	G370	Laser (AL)	Visually Inspect Code Indication V-2(I)	Verify Code Correct C-2			1
Align	Reticle on Feature	G511	Sensor Display (VSD)	Feel Switch Movement/Visually Align Feature K-5(R/VN-4(I))	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	2
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTTR)	1
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTTR)	5
Check	HAD Message (Range)	G292	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Range) C-4			2
Track	Feature	G228	Sensor Display (VSD)	Visually Detect Sensor Image V-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Tracking) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	5
Set	UPDT/ST Switch	G610	Fire Control Computer (AFC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (UPDT) C-3	Move Switch P-1(L)	Springloaded Toggle - 3 Positions (SPT-3)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 088 Perform Aircraft Position Update [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (SP) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2	
Press	U Key on DEK	G603	Fire Control Computer (AFC)	Visually Locate Key V-4(I)	Verify Entry Correct (UTM Coordinates) C-4	Press Key P-1(L)	Springloaded Press - Alphabetic Function (SP-AN)	2	
Set	Doppler Display Selector Switch	G152	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (PP) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2	
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (Left and Right Display Blank) C-2	Press Key P-1(L)	Springloaded Press (SP)	1	
Enter	UTM Coordinates	G619	Navigation Control (NC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Coordinates) C-4	Type Entry P-7(L)	Springloaded Press - Alphabetic Function (SP-AN)	12	
Press	Doppler Data Entry Key	G149	Navigation Control (NC)	Visually Locate Key and Read Symbolic Display V-7(I)	Verify Entry Correct (UTM Coordinates) C-4	Press Key P-1(L)	Springloaded Press (SP)	1	
Set	Doppler Display Selector Switch	G152	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (DIST/BRG/TIME) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2	
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (STBY) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2	

# AH-64 FUNCTION ANALYSIS

FUNCTION 009 Perform Before Engine Shutdown Check

TOTAL TIME (Approximate)

8.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	TAILWHEEL Switch	P572	Gear (FG)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Locked) C-2			Safety Toggle - 2 Pos Jona (S-T-2)	1	
Check	Tailwheel Advisory Light	P571	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2				.5	
Set	Park Brake	P455	Brakes (FB)	Feel Brake Position K-1(I)	Decide and Verify Correct Position (Locked) C-3	Push Toe Brakes P-2(F)		Directional Foot Press (FP)	2	
Set	Brake Lever	P658	Brakes (FB)	Visually Locate Lever V-4(I)	Make Conditioned Association (Lever Set) C-1	Pull Handle P-2(R)		Push-Pull Handle (PPH)	1	

# AH-64 FUNCTION ANALYSIS

FUNCTION 090 Perform Before Landing Check (Gunner)

TOTAL TIME (Approximate)

7.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	CPG ARM Switch	G132	Weapons (AW)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (Safe), and Verify Correct Status (Light Illuminated) C-3	Move Switch P-1(L)	Safety Toggle - 3 Positions (ST-3)	1
Set	RKT SEL Switch	G515	Rocket Control (ARC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	GUN SEL Switch	G288	Gun Control (AGC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	MSL SEL Switch	G425	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	LSR SEL Switch	G374	Laser (AL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1

# AH-64 FUNCTION ANALYSIS

FUNCTION 091 Perform Before Landing Check (Pilot)

TOTAL TIME (Approximate)

13.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	MASTER ARM Switch	P397	Weapons (AW)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (Safe), and Verify Correct Status (Light Illuminated) C-3	Move Switch P-1(L)		Toggle - 3 Positions (T-3)	1
Set	RKT SEL Switch	P515	Rocket Control (ARC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)		Toggle - 3 Positions (T-3)	1
Set	GUN SEL Switch	P288	Gun Control (AGC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)		Toggle - 3 Positions (T-3)	1
Set	MSL SEL Switch	P425	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)		Toggle - 2 Positions (T-2)	1
Check	TAILWHEEL Switch	P572	Gear (FG)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Lock) C-2			Safety Toggle - 2 Positions (ST-2)	1
Check	Park Brake	P453	Brakes (FB)	Visually Inspect Handle Position V-2(I)	Verify Current Position Correct (Unlocked) C-2				1
Set	Radar Jamming Control Switch	P488	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options, Decide Correct Position (Off), and Verify Correct Status (Light Extinguished) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	Infrared Jamming Control Switch	P345	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)		Toggle - 2 Positions (T-2)	1

# AH-64 FUNCTION ANALYSIS

FUNCTION 091 Perform Before Landing Check (Pilot) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Chaff Dispenser ARM Switch	P104	Survivability (US)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (Off), and Verify Correct Status (Light Extinguished) C-3	Move Switch P-1(R)	Toggle - 2 Positions (T-2)	1

## AH-64 FUNCTION ANALYSIS

FUNCTION 092 Perform Before Starting APU Check (Gunner)

TOTAL TIME (Approximate)

90.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	ICS System (G)	G325	Communication (UC)	Detect Sound A-3	Evaluate Current Condition and Decide Correct Volume C-3	Press Switch and Speak P-3(R)	Springloaded Press - 2 Positions (SP-2)	30
Check	LOW RPM ROTOR Light	G368	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	ENG 1 OUT Light	G179	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	ENG 2 OUT Light	G195	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Test	Warning and Advisory Lights (MASTER CAUTION WARNING, Caution Warning, Fire Handle, Advisory)	G638	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Status (All Lights Illuminated) C-2	Press and Hold Switch P-1(R)	Springloaded Press (SP-2)	30
Check	PRI HYD PSI Warning Light	G475	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	UTIL HYD PSI Warning Light	G616	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	MAN STAB Warning Light	G391	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	MAIN XMSN 1 Warning Light	G388	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5

AH-64 FUNCTION ANALYSIS

FUNCTION 092 Perform Before Starting APU Check (Gunner) (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	MAIN XMSN 2 Warning Light		G389	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2				.5
Check	ENG 1 Warning Light		G186	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2				.5
Check	ENG 2 Warning Light		G201	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2				.5
Check	ELEC SYS FAIL Warning Light		G165	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2				.5
Check	ENG Anti-ice Warning Light		G202	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2				.5
Set	Engine Instruments Test Switch (G)		G214	Advisory (UAD)	Visually Register Light V-1(I)	Verify Switch Engaged (Lights Illuminated) C-2	Press and Hold Switch P-1(R)	Springloaded Press (SP)		2
Check	Engine Instrument Lights (G)		G209	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Lights Illuminated/All 888s) C-2				.5
Check	Selectable Digital Display Lights		G534	Advisory (UAD)	Monitor Placement of Switch V-3(I)	Verify Correct Status (Readouts Normal) C-2	Turn Switch P-2(R)	Rotary - 5 Positions (R-5)		.5



AH-64 FUNCTION ANALYSIS

FUNCTION 093 Perform Before Starting APU Check (Pilot)

TOTAL TIME (Approximate)

117.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	BATT/EXT PWR Switch	P076	Electrical (UEL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (BATT) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Check	ENG Out Audio	P205	Advisory (UAD)	Detect Sound A-3	Verify Correct Status (On) C-2	Press Switch P-1(H)	Springloaded Press (SP)	1
Check	ICS System (P)	P326	Communication (UC)	Detect Sound A-3	Evaluate Current Condition and Decide Correct Volume C-3	Move Switch and Speak P-3(R)	Springloaded Center Toggle - 3 Positions (SCT-3)	30
Check	LOW RPM ROTOR Light	P368	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			5
Check	ENG 1 OUT Light	P179	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			5
Check	ENG 2 OUT Light	P195	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			5
Check	Utility Hydraulic Accumulator	P617	Hydraulics (FH)	Visually Inspect Instrument Indication V-2(I)	Verify Readout Correct (2600 PSI Minimum) C-2			2
Test	Warning and Advisory Lights (MASTER CAUTION WARNING, Caution, Warning, Fire Handle, Advisory)	P638	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Status (All Lights Illuminated) C-2	Press and Hold Switch P-1(R)	Springloaded Press (SP-2)	30
Check	PRI HYD PSI Warning Light	P475	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			5
Check	UTIL HYD PSI Warning Light	P616	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			5

AH-64 FUNCTION ANALYSIS

FUNCTION 093 Perform Before Starting APU Check (Pilot) (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	MAN STAB Warning Light	P391	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	OIL PSI ACC PUMP Warning Light	P443	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	OIL PSI NOSE GRBX 1 Warning Light	P448	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	OIL PSI MAIN XMSN 1 Warning Light	P446	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	OIL PSI MAIN XMSN 2 Warning Light	P447	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	OIL PSI NOSE CRBX 2 Warning Light	P449	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	OIL PSI ENG 1 Warning Light	P444	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	OIL PSI ENG 2 Warning Light	P445	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	GEN 1/RECT 1 Warning Light	P275	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	GEN 2/RECT 2 Warning Light	P278	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	FUEL PSI ENG 1 Warning Light	P265	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5

AH-64 FUNCTION ANALYSIS

FUNCTION 093 Perform Before Starting APU Check (Pilot) (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SHAFT DRIVEN COMP Warning Light	P537	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	FUEL PSI ENG 2 Warning Light	P266	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	Blade Anti-Ice Fail Light	P083	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	Canopy Door Advisory Light	P094	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	ENG 1 Anti-Ice Warning Light	P171	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Check	ENG 2 Anti-Ice Warning Light	P187	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5
Set	Fire Detector Test Switch (Position 1)	P234	Advisory (UAD)	Visually Scan Switch Positions and Lights; Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (1) C-3	Turn Switch P-2(R)	Springloaded Rotary - 3 Positions (SPR-3)	4
Check	Fire Detector Lights	P233	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			4
Set	Fire Detector Test Switch (Position 2)	P235	Advisory (UAD)	Visually Scan Switch Positions and Lights; Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (2) C-3	Turn Switch P-2(R)	Springloaded Rotary - 3 Positions (SPR-3)	4
Check	Fire Detector Lights	P233	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			4

AH-64 FUNCTION ANALYSIS

FUNCTION 093 Perform Before Starting APU Check (Pilot) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Set	Engine Instruments Test Switch (P)	P215	Advisory (UAD)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TST) C-3	Move Switch P-1(L)	Springloaded Toggle - 2 Positions (SPT-2)	2	
Check	Engine Instrument Lights (P)	P210	Advisory (UAD)	Visually Register Lights V-1(I)	Verify Correct Status (Lights Illuminated/All 888s) C-2			8	

AH-64 FUNCTION ANALYSIS

FUNCTION 094 Perform Before Starting Engines Check

9 Seconds

TOTAL TIME (Approximate)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	SHAFT DRIVEN COMP Warning Light	P537	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2				5
Check	Area Clear	P062	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Verify Area Clear C-2				5
Alert	Fireguard	P238	Safety (S)	Visually Detect Object/Receive Speech Feedback V-1(E)/A-4	Verify Correct Status (Guard Present and Ready) C-2	Press Switch, Speak, and Give Hand Signal P-3(R)			2

AH-64 FUNCTION ANALYSIS

FUNCTION 095 Perform Before Takeoff Check (Gunner)

TOTAL TIME (Approximate) 20 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	CPG ARM Switch	G132	Weapons (AW)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (ARM), and Verify Correct Status (Light Illuminated) C-3	Move Switch P-1(L)	Safety Toggle - 3 Positions (ST-3)	1
Set	RKT SEL Switch	G515	Rocket Control (ARC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	GUN SEL Switch	G288	Gun Control (AGC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	MSL SEL Switch	G425	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Check	AND Display (Missile)	G043	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Missile Ready) C-4			1
Set	LSR SEL Switch	G374	Laser (AL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	PLT/GND ORIDE Switch	G462	Electrical (UEL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	2
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (FDLS) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2

AH-64 FUNCTION ANALYSIS

FUNCTION 095 Perform Before Takeoff Check (Gunner) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	FOLS Results	G226	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify No Deficiencies C-4			3
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (STBY) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2

AH-64 FUNCTION ANALYSIS

FUNCTION 096 Perform Before Takeoff Check (Pilot)

TOTAL TIME (Approximate) 48.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	HARS Control Switch	P301	Navigation Control (NC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (OPR) C-2		Rotary - 4 Positions (R-4)	1
Set	TAILWHEEL Switch	P573	Gear (FG)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Lock) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	1
Check	Tailwheel Advisory Light	P571	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2			.5
Check	Fuel CROSSFEED Switch	P262	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2		Safety Toggle - 3 Positions (ST-3)	1
Check	Fuel Quantity Indicator (Internal)	P268	Fuel (EF)	Visually Inspect Instrument Indication V-2(I)	Interpret Symbolic Readout (Quantity) and Make Judgment (Enough Fuel) C-5			3
Monitor	Engine Instruments (P)	P213	Engine Instruments (EIN)	Visually Scan Instrument Indications V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-2			5
Check	Master CAUTION/WARNING Panel	P398	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Status (All Lights Extinguished) C-2			1
Perform	Power Check	P467	Flight Control/Engine Instruments (FC/EIN)	Visually Monitor Instrument Indication and Read Charts V-7(I)	Interpret Sensory and Symbolic Readouts and Make Comparison (Torque Indication Same as Performance Charts) C-6	Control Pressure P-4(R)		20



AH-64 FUNCTION ANALYSIS

FUNCTION 096 Perform Before Takeoff Check (Pilot) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	MASTER ARM Switch		P397	Weapons (AW)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (ARM), and Verify Correct Status (Light Illuminated) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	RKT SEL Switch		P515	Rocket Control (ARC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	GUN SEL Switch		P288	Gun Control (AGC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	MSL SEL Switch		P425	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(R)	Toggle - 2 Positions (T-2)	1
Set	ACQ SEL Switch (P)		P009	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Gunner) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	Radar Jamming Control Switch		P488	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options, Decide Correct Position (On), and Verify Correct Status (Light Illuminated) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	Infrared Jamming Control Switch		P345	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	Chaff Dispenser ARM Switch		P104	Survivability (US)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (ARM), and Verify Correct Status (Light Illuminated) C-3	Move Switch P-1(R)	Toggle - 2 Positions (T-2)	1

# AH-64 FUNCTION ANALYSIS

FUNCTION 097 Perform Before Taxi Check

TOTAL TIME (Approximate)

107.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Canopy Door	P092	Airframe (FA)	Visually Inspect Equipment Status V-2(I)	Verify Correct Status (Close) C-2			1
Check	Canopy Door Advisory Light	P094	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2			.5
Check	Pylon Safety Pins	P481	Weapons (AW)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Pins Removed) C-2		Push-Pull Pin (PPP)	2
Check	Chocks and External ICS Cords	P109	Ground Security (SG)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Chocks and ICS Cords Removed) C-2			2
Check	HARS Alignment	P300	Navigation Control (NC)	Visually Inspect Instrument Indication V-2(I)	Verify Alignment Correct C-2			1
Set	HARS Control Switch	P302	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (OPR) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	1
Set	NOE/APPCH Switch	P676	Flight Control (FC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	DASE Yaw Switch	P140	Flight Control (FC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Yaw) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	DASE Roll Switch	P139	Flight Control (FC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Roll) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1

# AH-64 FUNCTION ANALYSIS

## FUNCTION 097 Perform Before Taxi Check (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	DASE Pitch Switch		P137	Flight Control (FC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Pitch) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Check	DASE Caution Light		P136	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2			5
Release	Park Brake		P454	Brakes (FB)	Feel Brake Position K-1(I)	Decide and Verify Correct Position (Unlocked) C-3	Push Toe Brakes P-2(F)		1
Set	TAILWHEEL Switch		P573	Gear (FG)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Unlocked) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	1
Check	Tailwheel Advisory Light		P571	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			5
Position	Aircraft Into Wind		P023	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R)/V-4	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)		15
Check	OAT Temperature		P438	Flight Instruments (FI)	Visually Inspect Instrument Indication V-2(I)	Note Current Temperature C-4			2
Set	ENG 2 PWR Lever		P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Idle) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Adjust	Collective		P119	Flight Control/ Engine Instruments (FC/EIN)	Feel Lever Movement/ Visually Monitor Instrument Indication K-4(L)/V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (ENG 1 Torque 60%) C-2	Move Collective P-4(L)		20

AH-64 FUNCTION ANALYSIS

FUNCTION 097 Perform Before Taxi Check (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	ENG 1 TGT	P185	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-2			4
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Fly) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Set	ENG 1 PWR Lever	P182	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Idle) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Adjust	Collective	P119	Flight Control/ Engine Instruments (FC/EIN)	Feel Lever Movement/ Visually Monitor Instrument Indication K-4(L)/V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (ENG 2 Torque 60%) C-2	Move Collective P-4(L)		20
Check	ENG 2 TGT	P200	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-2			4
Decrease	Collective	P120	Flight Control (FC)	Feel Lever Movement K-4(L)	Make Conditioned Association (Lever Down) C-1	Move Collective P-4(L)		5
Set	ENG 1 PWR Lever	P182	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Fly) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3

# AH-64 FUNCTION ANALYSIS

FUNCTION 098 Perform Before Taxi Check (FARP)

TOTAL TIME (Approximate) 4 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Release	Park Brake	P454	Brakes (FB)	Feel Brake Position K-1(F)	Decide and Verify Correct Position (Unlocked) C-3	Push Toe Brakes P-2(F)		1
Set	TAILWHEEL Switch	P573	Gear (FG)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Unlock) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	1
Check	Tailwheel Advisory Light	P571	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			.5

# AH-64 FUNCTION ANALYSIS

FUNCTION 099 Perform Cockpit Safety Check (Gunner)

TOTAL TIME (Approximate) 4.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	BAT OVRD Switch	G074	Electrical (UEL)	Visually Inspect Switch Position V-2(l)	Verify Current Position Correct (NRML/Guard Down C-2		Covered Toggle (CT)	1
Check	CANOPY JETT Pin	G097	Safety (S)	Visually Inspect Equipment Status V-2(l)	Verify Current Position Correct (Pin Installed) C-2		Push-Pull Pin (PPP)	1
Check	Engine Fire Handles	G207	Safety (S)	Visually Inspect Handle Position V-2(l)	Verify Current Position Correct (In) C-2		Push-Pull Handle (PPH)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 100 Perform Cockpit Safety Check (Pilot)

TOTAL TIME (Approximate) 7.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	BATT/EXT PWR Switch	P075	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	CANOPY JETT Pin	P097	Safety (S)	Visually Inspect Equipment Status V-2(I)	Verify Current Position Correct (Pin Installed) C-2		Push-Pull Pin (PPP)	1
Check	Engine Fire Handles	P207	Safety (S)	Visually Inspect Handle Position V-2(I)	Verify Current Position Correct (In) C-2		Push-Pull Handle (PPH)	1
Check	APU Fire Handle	P057	Safety (S)	Visually Inspect Handle Position V-2(I)	Verify Current Position Correct (In) C-2		Push-Pull Handle (PPH)	1
Check	APU Control Switch	P053	APU (UAP)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 3 Positions (ST-3)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 101 Perform Engine 1 Overspeed Test

TOTAL TIME (Approximate)

11.5 Seconds

TASKS				WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	CKT A Switch - ENG 1	P114	Fuel (EF)	Visually Monitor Switch Placement, Instrument Indication, and Light V-3(I)	Evaluate Position Options, Decide Correct Position (ENG 1), Interpret Sensory and Symbolic Readouts, and Verify Correct Status (NG Stable and EMER PWR Light Extinguished) C-3	Move and Release Switch P-1(L)	Springloaded Center Toggle - 3 Positions (SCT-3)	3	
Set	CKT B Switch - ENG 1	P116	Fuel (EF)	Visually Monitor Switch Placement, Instrument Indication, and Light V-3(I)	Evaluate Position Options, Decide Correct Position (ENG 1), Interpret Sensory and Symbolic Readouts, and Verify Correct Status (NG Stable and EMER PWR Light Illuminated) C-3	Move and Release Switch P-1(L)	Springloaded Center Toggle - 3 Positions (SCT-3)	3	
Set	CKT A and CKT B Switches - ENG 1	P112	Fuel (EF)	Visually Monitor Switch Placement, Instrument Indication, and Light V-3(I)	Evaluate Position Options, Decide Correct Position (ENG 1), Interpret Sensory and Symbolic Readouts, and Verify Correct Status (NG Decreasing and EMER PWR Light Illuminated) C-3	Move and Release Switch P-1(L)	Springloaded Center Toggle - 3 Positions (SCT-3)	4	



AH-64 FUNCTION ANALYSIS

FUNCTION 102 Perform Engine 2 Overspeed Test

TOTAL TIME (Approximate) 11.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	CKT A Switch - ENG 2	P115	Fuel (EF)	Visually Monitor Switch Placement, Instrument Indication, and Light V-3(I)	Evaluate Position Options, Decide Correct Position (ENG 2), Interpret Sensory and Symbolic Readouts, and Verify Correct Status (NG Stable and EMER PWR Light Extinguished) C-3	Move and Release Switch P-1(L)		Springloaded Center Toggle - 3 Positions (SCT-3)	3
Set	CKT B Switch - ENG 2	P117	Fuel (EF)	Visually Monitor Switch Placement, Instrument Indication, and Light V-3(I)	Evaluate Position Options, Decide Correct Position (ENG 2), Interpret Sensory and Symbolic Readouts, and Verify Correct Status (NG Stable and EMER PWR Light Illuminated) C-3	Move and Release Switch P-1(L)		Springloaded Center Toggle - 3 Positions (SCT-3)	3
Set	CKT A and CKT B Switches - ENG 2	P113	Fuel (EF)	Visually Monitor Switch Placement, Instrument Indication, and Light V-3(I)	Evaluate Position Options, Decide Correct Position (ENG 2), Interpret Sensory and Symbolic Readouts, and Verify Correct Status (NG Decreasing and EMER PWR Light Illuminated) C-3	Move and Release Switch P-1(L)		Springloaded Center Toggle - 3 Positions (SCT-3)	4

AH-64 FUNCTION ANALYSIS

FUNCTION 103 Perform External Communication (Gunner)

TOTAL TIME (Approximate) 28 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Transmitter Selector Switch	G597	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	1
Transmit	Message	G414	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	10*
Release	Radio Transmitter Switch	G680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5
Receive	Message	G410	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4			10*
Transmit	Acknowledgment	G003	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3*
Release	Radio Transmitter Switch	G680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 104 Perform External Communication (Pilot)

TOTAL TIME (Approximate)

28 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Transmitter Selector Switch	P597	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	1
Transmit	Message	P414	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	10*
Release	Radio Transmitter Switch	P680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5
Receive	Message	P410	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4			10*
Transmit	Acknowledgment	P003	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3*
Release	Radio Transmitter Switch	P680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 105 Perform Hover

Continuous\*\*

TOTAL TIME (Approximate)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Flight Mode Symbolology Switch	P244	Symbol Generator (ASG)	Feel Switch Movements/ Visually Discriminate Flight Symbols K-2(R)W-5	Evaluate Symbolology Options: Deckle and Verify Correct Symbolology (Hover) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	2
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)W-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Increase	Power	P679	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)W-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		1
Check	% Torque Indicator (Inflight)	P688	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements/ Visually Inspect Instrument Indication K-4(B)W-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1*
Control	Altitude	P036	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(L)W-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)		5*
Control	Altitude	P065	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)W-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5*
Control	Heading	P305	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(F)W-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)		5*
Control	Drift	P160	Flight Control/ External Visual Field (FCVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(R)W-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		5*

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence  
 \*\*The function "Perform Hover" is a continuous function whose length may vary with the specific segment in which it occurs.

AH-64 FUNCTION ANALYSIS

FUNCTION 106 Perform IHADSS Operational Check (Gunner)

TOTAL TIME (Approximate) 23.5 Seconds

TASKS				WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	SIGHT SEL Switch (G)	G539	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TADS) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (6 Functional) (P-7)	2	
Adjust	IHADSS Symbol Brightness/Gain/Level (G)	G338	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn and Move Switches P-2(R)	3 Rotary - Rheostat (P-R)	10	
Check	Image and Turret Function	G340	Sensor Display (VSD)	Visually Detect Sensor Images V-1(I)	Verify Current Condition Okay (Turret Functional) C-2	Move Head P-4(H)		10	

AH-64 FUNCTION ANALYSIS

FUNCTION 107 Perform Navigation

TOTAL TIME (Approximate)

Continuous\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Call Up	Waypoint	G687	Navigation Control (NC)	Read Symbolic Display V-7(I)	Verify Correct Waypoint Displayed C-4	Turn Switch P-2(R)	Vertical Thumbwheel - 9 Positions (VT-9)	4
Monitor	Doppler Display	G151	Navigation Display (ND)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Make Judgment (Location Correct) C-6			4
Read	Maps	G394	Navigation Control (NC)	Read Map Symbols V-7(I)	Interpret Map Symbols C-4	Handle Maps P-5(L)		4
Follow	Course	G130	Maps/External Visual Field (NMVEX)	Visually Search External Field of View V-7(E)	Interpret Sensory Feedback and Symbolic Readout and Make Judgment (Adjustment Needed) C-6			4

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence  
 \*\*The function "Perform Navigation" is a continuous function whose length may vary with the specific segment in which it occurs.

## AH-64 FUNCTION ANALYSIS

FUNCTION 108 Perform PNVS Operational Check

TOTAL TIME (Approximate)

50.5 Seconds

TASKS		WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR	
Set	VID SEL Switch (P)	P633	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (GRAY SC) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)
Adjust	IHADSS Display Brightness/Contrast (P)	P334	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switches P-2(L)	2 Rotary - Rheostat (R-R)
Set	VID SEL Switch (P)	P633	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (PLT) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)
Set	SIGHT SEL Switch (P)	P541	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NVS) C-3	Turn Switch P-2(L)	Rotary - 3 Positions (R-3)
Check	Image and Turret Function	P340	Sensor Display (VSD)	Visually Detect Sensor Images V-1(I)	Verify Current Condition Okay (Turret Functional) C-2	Move Head P-4(H)	10
Adjust	IHADSS Symbol Brightness/Gain/Level (P)	P339	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switches P-2(L)	3 Rotary - Rheostat (R-R)
Check	Flight Mode Symbolology Switch	P243	Symbol Generator (ASG)	Feel Switch Movement/Visually Discriminate Flight Symbols K-2(R)/V-6(I)	Verify Correct Symbolology C-2	Move Switch (Repeat) P-1(R)	8
Check	PNVS Polarity Reversal	P463	Sensor Display (VSD)	Visually Monitor Sensor Images V-3(I)	Decide Desired Image (White or Black) C-3	Move Switch P-1(L)	4
Set	ACM Switch	P005	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ACM) C-3	Move Switch P-1(L)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 109 Perform Postflight Cockpit Check (Gunner)

TOTAL TIME (Approximate) 24.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	VHF Control Switch	G625	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 3 Positions (R-3)	1
Set	Doppler Mode Switch	G156	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Safety Rotary - 6 Positions (SR-6)	1
Set	KY58 Power Switch	G357	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 3 Positions (R-3)	1
Set	INST Light Switch	G349	Lighting (UL)	Visually Monitor Placement of Switch V-3(I)	Decide Correct Position (Off) C-3	Turn Switch P-2(L)	Rotary - Rheostat (R-R)	1
Set	L CSL Light Switch	G358	Lighting (UL)	Visually Monitor Placement of Switch V-3(I)	Decide Correct Position C-3	Turn Switch P-2(L)	Rotary - Rheostat (R-R)	1
Position	Canopy Door	G093	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(I)	Verify Correct Status (Open) C-2	Move Door P-5(R)		4
Position	CANOPY JETT Pin	G098	Safety (S)	Visually Coordinate Hand Movement V-4(I)	Verify Correct Status (Pin Installed) C-2	Install Pin P-5(L)	Push-Pull Pin (PPP)	5
Remove	Helmet	G313	Communication/ Sensor Display (UC/VSD)	Feel Helmet Position K-1(B)	Verify Correct Status (Removed) C-2	Take Off Helmet P-5(B)		3
Disconnect	Helmet	G311	Communication/ Sensor Display (UC/VSD)	Visually Coordinate Hand Movement V-4(I)	Verify Correct Status (Disconnected) C-2	Separate Plug P-5(B)		3



AH-64 FUNCTION ANALYSIS

FUNCTION 110 Perform Postflight Cockpit Check (Pilot)

TOTAL TIME (Approximate)

56.5 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Turn	Ignition Key	P329	Electrical (UEL)	Visually Coordinate Hand Movement V-4(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Key P-5(L)	Key - 2 Positions (K-2)	2
Remove	Ignition Key	P328	Electrical (UEL)	Visually Coordinate Hand Movement V-4(I)	Verify Correct Status (Removed) C-2	Remove Key P-5(L)	Key - 2 Positions (K-2)	4
Set	AN/APR 39	P040	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position (Off) C-3	Turn Switch P-2(R)	Rotary - Rheostat (R-R)	2
Set	KY58 Power Switch	P357	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 3 Positions (R-3)	1
Set	UHF Control Switch	P605	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	2
Set	VHF Control Switch	P625	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 3 Positions (R-3)	1
Set	KY28 Power Switch	P355	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)	Toggle - 2 Positions (T-2)	1
Set	Transponder Control Switch	P599	Communication (UC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	2
Set	ADF Control Switch	P011	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	2

## AH-64 FUNCTION ANALYSIS

FUNCTION 110 Perform Postflight Cockpit Check (Pilot) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Anticollision Light Switch		P049	Lighting (UL)	Visually Inspect Switch Position V-2(I)	Verify Correct Position (Off) C-2			Toggle - 3 Positions (T-3)	1
Set	INST Light Switch		P349	Lighting (UL)	Visually Monitor Placement of Switch V-3(I)	Decide Correct Position (Off) C-3	Turn Switch P-2(L)		Rotary - Rheostat (R-R)	1
Set	L CSL Light Switch		P358	Lighting (UL)	Visually Monitor Placement of Switch V-3(I)	Decide Correct Position C-3	Turn Switch P-2(L)		Rotary - Rheostat (R-R)	1
Check	R/CTR CSL Light Switch		P495	Lighting (UL)	Visually Monitor Placement of Switch V-3(I)	Decide Desired Position C-3	Turn Switch P-2(L)		Rotary - Rheostat (R-R)	1
Set	RTR BK Switch		P528	Rotor (FR)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)		Safety Toggle - 3 Positions (ST-3)	1
Set	GEN 1 Switch		P274	Electrical (UEL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)		Safety Toggle - 3 Positions (ST-3)	2
Set	GEN 2 Switch		P277	Electrical (UEL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)		Safety Toggle - 3 Positions (ST-3)	2
Set	APU Control Switch		P054	APU (UAP)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(R)		Safety Toggle - 3 Positions (ST-3)	2
Check	APU ON Light		P060	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2				1

# AH-64 FUNCTION ANALYSIS

## FUNCTION 110 Perform Postflight Cockpit Check (Pilot) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	BATT/EXT PWR Switch	P076	Electrical (UEL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1	
Position	CANOPY JETT Pin	P098	Safety (S)	Visually Coordinate Hand Movement V-4(I)	Verify Correct Status (Pin Installed) C-2	Install Pin P-5(L)	Push-Pull Pin (PPP)	5	
Position	Canopy Door	P093	Airframe (FA)	Visually Inspect Equipment Status and Coordinate Hand Movement V-4(I)	Verify Correct Status (Open) C-2	Move Door P-5(R)		4	
Remove	Helmet	P313	Communication/ Sensor Display (UC/VSD)	Feel Helmet Position K-1(B)	Verify Correct Status (Removed) C-2	Take Off Helmet P-5(B)		3	
Disconnect	Helmet	P311	Communication/ Sensor Display (UC/VSD)	Visually Coordinate Hand Movement V-4(I)	Verify Correct Status (Disconnected) C-2	Separate Plug P-5(B)		3	

# AH-64 FUNCTION ANALYSIS

## FUNCTION 111 Perform TADS Operational Checks

TOTAL TIME (Approximate)

89 Seconds

TASKS		WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR	
Check	TADS Switch	G563	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Toggle - 3 Positions (T-3) 1
Set	GS Switch	G284	Sensor Display (VSD)	Visually Register Light V-1(I)	Decide and Verify Correct Position (GS On) C-3	Move Switch P-1(L)	Springloaded Toggle - 2 Positions (SPT-2) 1
Adjust	TADS Display Brightness/ Contrast	G561	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Move Switch P-1(L)	2 Springloaded Center Toggle - 3 Positions Each (SCT-3) 10
Set	HDD Switch	G303	Sensor Display (VSD)	Feel Switch Position/ Visually Detect Sensor Images K-2(L)/V-1(I)	Verify Correct Image C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2) 1
Adjust	TADS Display Brightness/ Contrast	G561	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Move Switch P-1(R)	2 Springloaded Center Toggle - 3 Positions Each (SCT-3) 10
Set	HDD Switch	G303	Sensor Display (VSD)	Feel Switch Position/ Visually Detect Sensor Images K-2(L)/V-1(I)	Verify Correct Image C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2) 1
Check	VID SEL Switch (G)	G630	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Toggle - 3 Positions (2 Functional) (T-3) 1
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (6 Functional) (R-7) 1
Check	Sensor Select Switch	G535	Sensor Control (VSC)	Feel Switch Position/ Visually Detect Sensor Images K-1(L)/V-1(I)	Verify Current Position and Image Correct (DTV) C-2		Toggle - 3 Positions (T-3) 1

# AH-64 FUNCTION ANALYSIS

## FUNCTION 111 Perform TADS Operational Checks [Continued]

TASKS				WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	SLAVE Switch	G544	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(R)/V-1(I)	Verify Correct Image (Fixed Forward) C-2	Press Switch P-1(R)	Springloaded Press - 2 Positions (SP-2)	1
Set	SLAVE Switch	G544	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(R)/V-1(I)	Verify Correct Image (Return to Normal) C-2	Press Switch P-1(R)	Springloaded Press - 2 Positions (SP-2)	1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/Visually Monitor Sensor Images K-5(R)/V-3(I)	Evaluate Sensory Feedback and Verify Switch Engaged (Images Changing) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	20
Evaluate	FOVs (DTV); W, N, Z	G254	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Select Desired Position, and Verify Correct Image C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	4
Set	IAT Polarity Switch	G322	Sensor Display (VSD)	Feel Switch Movement K-2(R)	Evaluate Position Options and Select Desired Position (Black or White) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Gates Tracking) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Gates Disappear) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (DVO), and Verify Correct Image C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1

\*The reported time represents an estimate of the average amount of time required to search the sensor field of view; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 111 Perform TADS Operational Checks [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Evaluate	FOVs (DVO): W, N	G255	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)W-1(I)	Evaluate Position Options, Select Desired Position, and Verify Correct Image C-3	Move Switch (Repeat) P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	3
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)W-1(I)	Evaluate Position Options, Decide Correct Position (FLIR), and Verify Correct Image C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Adjust	FLIR Level/Gain	G246	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switches P-2(L)	2 Rotary - Rheostat (R-R)	4
Set	ACM Switch	G005	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ACM) C-3	Move Switch P-1(R)	Toggle - 2 Positions (T-2)	1
Evaluate	FOVs (FLIR): W, M, N, Z	G256	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)W-1(I)	Evaluate Position Options, Select Desired Position, and Verify Correct Image C-3	Move Switch (Repeat) P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	6
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)W-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Gates Tracking) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)W-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Gates Disappear) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Set	FLIR Polarity Reversal Switch	G247	Sensor Display (VSD)	Feel Switch Movement/ Visually Discriminate Sensor Images K-2(R)W-6(I)	Decide Desired Image (White or Black) C-3	Press Switch P-1(R)	Springloaded Press - 2 Positions (SP-2)	1

# AH-64 FUNCTION ANALYSIS

## FUNCTION 111 Perform TADS Operational Checks [Continued]

TASKS				WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(LYV-1(I))	Evaluate Position Options, Decide Correct Position (DTV), and Verify Correct Image C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1	

AH-64 FUNCTION ANALYSIS

FUNCTION 112 Perform Target Store Procedures

TOTAL TIME (Approximate)

6.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	TGT/NAV Index Code	G588	Fire Control Computer (AFC)	Visually Monitor Switch Indication V-3(I)	Identify and Verify Correct Number C-3	Press Switch P-2(L)		2 Directional Springloaded Press - 9 Positions Each (DSP-9)	2
Check	Reticle on Target	G512	Sensor Display (VSD)	Visually Detect Feature V-1(I)	Verify Reticle Aligned C-2			Thumbwheel - Rheostat (T-R)	2
Set	UPDT/ST Switch	G610	Fire Control Computer (AFC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (ST) C-3	Move Switch P-1(L)		Springloaded Toggle - 3 Positions (SPT-3)	1



AH-64 FUNCTION ANALYSIS

FUNCTION 113 Perform Taxi

TOTAL TIME (Approximate)

Continuous\*\*

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Control	Forward Motion		P252	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements and Visually Detect Aircraft Movement K-4(L)V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)			5*
Control	Heading		P305	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements and Visually Detect Aircraft Movement K-4(F)V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)			5*

\* Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.

\*\*The function "Perform Taxi" is a continuous function whose length may vary with the specific segment in which it occurs.

AH-64 FUNCTION ANALYSIS

FUNCTION 114 Perform Taxi Check

TOTAL TIME (Approximate) 16.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Wheel Brakes	P647	Brakes (FB)	Feel Brake Position K-1(F)	Verify Correct Status (Functional) C-2	Press Toe Lever P-2(F)		5
Monitor	Engine Instruments (P)	P213	Engine Instruments (EIN)	Visually Scan Instrument Indications V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-2			5
Check	Flight Instruments	P242	Flight Instruments (FI)	Visually Monitor Instrument Indications V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits) C-2			5

# AH-64 FUNCTION ANALYSIS

FUNCTION 115 Place Aircraft in Constraints

TOTAL TIME (Approximate)

7 Seconds\*

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Position	Aircraft in Constraints	P022	Flight Control/ Sensor Display (FC/VSD)	Feel Control Movements/ Visually Monitor Sensor Display K-4(R)/V-3(I)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4		3		
Stabilize	Aircraft	P019	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements and Visually Detect Aircraft Movement K-4(R)/V-3(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4		3		

\*The reported time represents an estimate of the average amount of time required to position the aircraft in constraints; the actual time spent performing the function in a given mission segment may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 116 Plan Mission

TOTAL TIME (Approximate) 1922 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE / CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Receive	Mission	B421	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4	Rec'd Data P-6(R)		1480*
Complete	Map Reconnaissance	B393	Maps (NM)	Read Maps V-7(I)	Interpret Map Symbols C-4	Handle Maps P-5(B)		540*
Receive	Weather Briefing	G645	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4			300*
Complete	Flight Plan (Form 175)	P245	Flight Forms (UF)	Read Forms V-7(I)	Encode and Verify Content Entry C-4	Complete Form P-6(H)		300*
Brief	Crew	P133	Communication (UC)	Receive Speech Feedback A-4	Encode Message C-4	Speak P-3(H)		600*

\*The reported time represents an estimate of the average amount of time required to conduct the mission planning task; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

\*\*The total time for this function is based on the concurrent performance of certain tasks by both crewmembers.

AH-64 FUNCTION ANALYSIS

FUNCTION 117 Prepare Laser Spot Tracker

TOTAL TIME (Approximate)

4 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Set	LST Code Switch	G375	Laser (AL)	Visually Monitor Code Indication V-3(I)	Encode and Verify Correct Entry C-4	Press Switch P-2(L)	2 Directional Springloaded Press - 9 Positions Each (DSP-9)	2	
Check	AND Display (Laser Code)	G041	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Code Correct C-4			1	

AH-64 FUNCTION ANALYSIS

FUNCTION 118 Prepare Performance Planning Card

TOTAL TIME (Approximate)

334 Seconds\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Determine	Pressure Altitude (Departure)	P474	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		3
Determine	Free Air Temperature (Departure)	P259	Flight Forms (UF)	Read Report V-7(I)	Interpret Report C-4	Complete Forms P-6(R)		3
Determine	Takeoff Gross Weight	P576	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		3
Determine	Weight of Load	P646	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		3
Determine	Takeoff Fuel Weight	P575	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		3
Determine	Maximum Torque Available (Departure) (Dual Engine)	P408	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		17
Determine	Maximum Torque Available (Departure) (Single Engine)	P409	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		17
Determine	Maximum Allowable Gross Weight (IGE)	P402	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		12
Determine	Maximum Allowable Gross Weight (OGE)	P403	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		12
Determine	Go/No-Go Torques (IGE)	P280	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		8
Determine	Go/No-Go Torques (OGE)	P281	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		8
Determine	Predicted Hover Torque	P471	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		8
Determine	Hover Torque (OGE)	P319	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		8
Determine	Maximum Rate of Climb IAS	P405	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		14

\*The reported time represents the total time required to complete all items on the Performance Planning Card, not just the mandatory items.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 118 Prepare Performance Planning Card (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Determine	Maximum Range IAS	P404	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		8
Determine	Single Engine IAS	P542	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		8
Determine	Pressure Altitude (Arrival)	P472	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		3
Determine	Free Air Temperature (Arrival)	P257	Flight Forms (UF)	Read Report V-7(I)	Interpret Report C-4	Complete Forms P-6(R)		3
Determine	Estimated Landing Gross Weight	P218	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		7
Determine	Maximum Allowable Gross Weight (Arrival)	P401	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		12
Determine	Maximum Torque Available (Arrival) (Dual Engine)	P406	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		17
Determine	Maximum Torque Available (Arrival) (Single Engine)	P407	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		17
Determine	Hover Torque (Arrival) (IGE)	P317	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		8
Determine	Hover Torque (Arrival) (OGE)	P318	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		8
Determine	Pressure Altitude (Cruise)	P473	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		3
Determine	Free Air Temperature (Cruise)	P258	Flight Forms (UF)	Read Report V-7(I)	Interpret Report C-4	Complete Forms P-6(R)		3
Determine	Cruise VNE	P134	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		22
Determine	Indicated Airspeed (Cruise) (Dual Engine)	P341	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)		30

AH-64 FUNCTION ANALYSIS

FUNCTION 118 Prepare Performance Planning Card [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE		PSYCHOMOTOR		
Determine	Indicated Airspeed (Cruise) (Single Engine)	P342	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)				20
Determine	True Airspeed (Cruise)	P601	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)				10
Determine	Predicted Cruise Torque (Dual Engine)	P469	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)				10
Determine	Predicted Fuel Flow (Dual Engine)	P470	Flight Forms (UF)	Read Forms/Charts V-7(I)	Interpret Charts C-7	Complete Forms P-6(R)				10



AH-64 FUNCTION ANALYSIS

FUNCTION 119 Prepare Weight and Balance Form

TOTAL TIME (Approximate)

663 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Determine	Basic Weight and Moment	G073	Flight Forms (UF)	Read Forms/Charts V-7(I)	Conduct Computations C-7	Complete Forms P-6(R)		120
Determine	Operating Weight and Moment	G450	Flight Forms (UF)	Read Forms/Charts V-7(I)	Conduct Computations C-7	Complete Forms P-6(R)		80
Determine	Takeoff Weight and Moment	G577	Flight Forms (UF)	Read Forms/Charts V-7(I)	Conduct Computations C-7	Complete Forms P-6(R)		150
Determine	Takeoff Center of Gravity	G574	Flight Forms (UF)	Read Forms/Charts V-7(I)	Conduct Computations C-7	Complete Forms P-6(R)		80
Determine	Landing Weight and Moment	G360	Flight Forms (UF)	Read Forms/Charts V-7(I)	Conduct Computations C-7	Complete Forms P-6(R)		150
Determine	Landing Center of Gravity	G359	Flight Forms (UF)	Read Forms/Charts V-7(I)	Conduct Computations C-7	Complete Forms P-6(R)		80

AH-64 FUNCTION ANALYSIS

FUNCTION 120 Program Doppler

TOTAL TIME (Approximate)

101 Seconds\*

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Set	Doppler Mode Switch	G156	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Lamp Test) C-3	Turn Switch P-2(R)	Safety Rotary - 6 Positions (SR-6)	1		
Check	Doppler Panel Lights	G157	Navigation Control (NC)	Visually Register Lights V-1(I)	Verify Correct Status (All Lights Illuminated) C-2			2		
Set	Doppler Mode Switch	G156	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Test) C-3	Turn Switch P-2(R)	Safety Rotary - 6 Positions (SR-6)	1		
Check	Doppler Display	G150	Navigation Control (NC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify No Malfunctions C-4			18		
Set	Doppler Mode Switch	G156	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (UTM) C-3	Turn Switch P-2(R)	Safety Rotary - 6 Positions (SR-6)	1		
Set	Doppler Display Selector Switch	G152	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (SPH/VAR) C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	2		
Set	DEST DISP Thumbwheel	G147	Navigation Control (NC)	Visually Monitor Switch Indication V-3(I)	Decide and Verify Correct Position C-3	Turn Thumbwheel P-2(R)	Vertical Thumbwheel - 9 Positions (VT-9)	5		
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (TGT STR Blank) C-2	Press Key P-1(R)	Springloaded Press (SP)	1		
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (Left Display Blank) C-2	Press Key P-1(R)	Springloaded Press (SP)	1		

\*The reported time represents the total time required to enter the coordinates for Waypoint #1. Entry of the coordinates for each additional waypoint requires a total of 71.5 seconds.

AH-64 FUNCTION ANALYSIS

FUNCTION 120 Program Doppler [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Enter	Doppler Spheroid Data	G158	Navigation Control (NC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Spheroid Data) C-4	Type Entry P-7(R)	Springloaded Press - Alphanumeric Functions (SP-AN)	10
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (Right Display Blank) C-2	Press Key P-1(R)	Springloaded Press (SP)	1
Enter	Doppler Magnetic Variation	G154	Navigation Control (NC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Magnetic Variation) C-4	Type Entry P-7(R)	Springloaded Press - Alphanumeric Functions (SP-AN)	10
Press	Doppler Data Entry Key	G149	Navigation Control (NC)	Visually Locate Key and Read Symbolic Display V-7(I)	Verify Entry Correct (TGT STR Data) C-4	Press Key P-1(R)	Springloaded Press (SP)	1
Set	Doppler Display Selector Switch	G152	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (DEST/TGT) C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	2
Set	DEST DISP Thumbwheel	G147	Navigation Control (NC)	Visually Monitor Switch Indication V-3(I)	Decide and Verify Correct Position (P) C-3	Turn Thumbwheel P-2(R)	Vertical Thumbwheel - 9 Positions (VT-9)	5
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (TGT STR Blank) C-2	Press Key P-1(R)	Springloaded Press (SP)	1
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (Center Display Blank) C-2	Press Key P-1(R)	Springloaded Press (SP)	1
Enter	Doppler Zone Data	G159	Navigation Control (NC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Zone Data) C-4	Type Entry P-7(R)	Springloaded Press - Alphanumeric Functions (SP-AN)	3

# AH-64 FUNCTION ANALYSIS

## FUNCTION 120 Program Doppler [Continued]

TASKS		WORKLOAD COMPONENTS					SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (Left and Right Display Blank) C-2	Press Key P-1(R)	Springloaded Press (SP)	1
Enter	UTM Coordinates	G619	Navigation Control (NC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Coordinates) C-4	Type Entry P-1(R)	Springloaded Press - Alphanumeric Functions (SP-AN)	12
Press	Doppler Data Entry Key	G149	Navigation Control (NC)	Visually Locate Key and Read Symbolic Display V-7(I)	Verify Entry Correct (UTM Coordinates) C-4	Press Key P-1(R)	Springloaded Press (SP)	1
Set	FLY-TO-DEST Switch	G249	Navigation Control (NC)	Visually Monitor Switch Indication V-3(I)	Decide and Verify Correct Position (P) C-3	Turn Switch P-2(R)	Vertical Thumbwheel - 9 Positions (VT-9)	5

AH-64 FUNCTION ANALYSIS

FUNCTION 121 Program Transponder

TOTAL TIME (Approximate)

85 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Master Switch	P672	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (STBY) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	2
Set	Mode 1 Code	P673	Survivability (US)	Visually Locate Switch and Read Symbolic Display V-7(I)	Encode Current Entry (Current Code) C-4	Press Switch P-1(R)	Springloaded Press (SP)	5
Set	Mode 3A Code	P674	Survivability (US)	Visually Locate Switch and Read Symbolic Display V-7(I)	Encode Current Entry (Current Code) C-4	Press Switch P-1(R)	Springloaded Press (SP)	10
Check	Test Light	P682	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2	Press Light P-1(R)	Springloaded Press (SP)	5
Check	Test/MON Light	P683	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2	Press Light P-1(R)	Springloaded Press (SP)	5
Check	Reply Light	P681	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2	Press Light P-1(R)	Springloaded Press (SP)	5
Set	ANT Switch	P656	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (BOT) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	Master Switch	P672	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	2
Set	M-1 Test Switch	P665	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)	Toggle - 3 Positions (T-3)	2
Set	M-1 Switch	P664	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 121 Program Transponder (Continued)

TASKS		SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT		SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	M-2 Test Switch	P667	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)	Toggle - 3 Positions (T-3)	2
Set	M-2 Switch	P666	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	M-3 Test Switch	P669	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)	Toggle - 3 Positions (T-3)	2
Set	M-3 Switch	P668	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	M-C Test Switch	P671	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)	Toggle - 3 Positions (T-3)	2
Set	M-C Switch	P670	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	ANT Switch	P656	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TOP) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	M-1 Test Switch	P665	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)	Toggle - 3 Positions (T-3)	2
Set	M-1 Switch	P664	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 121 Program Transponder (Continued)

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
		VERB	OBJECT	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	M-2 Test Switch	P667	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)		Toggle - 3 Positions (T-3)	2
Set	M-2 Switch	P666	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	M-3 Test Switch	P669	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)		Toggle - 3 Positions (T-3)	2
Set	M-3 Switch	P668	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	M-C Test Switch	P671	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)		Toggle - 3 Positions (T-3)	2
Set	M-C Switch	P670	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	ANT Switch	P656	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TOP) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	M-1 Test Switch	P665	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)		Toggle - 3 Positions (T-3)	2
Set	M-1 Switch	P664	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 121 Program Transponder (Continued)

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	M-2 Test Switch	P667	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)		Toggle - 3 Positions (T-3)	2
Set	M-2 Switch	P666	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	M-3 Test Switch	P669	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)		Toggle - 3 Positions (T-3)	2
Set	M-3 Switch	P668	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	M-C Test Switch	P671	Survivability (US)	Visually Register Light V-1(I)	Verify Correct Status (Go Illuminated) C-2	Move and Hold Switch P-1(R)		Toggle - 3 Positions (T-3)	2
Set	M-C Switch	P670	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	Mode 4 Switch	P675	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position C-3	Turn Switch P-2(R)		Rotary - 4 Positions	2
Set	M-1 Switch	P664	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1
Set	M-2 Switch	P666	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)		Toggle - 3 Positions (T-3)	1



AH-64 FUNCTION ANALYSIS

FUNCTION 121 Program Transponder (Continued)

TASKS				SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	M-3 Switch	P668	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1	
Set	M-C Switch	P670	Survivability (US)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (ON) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1	

AH-64 FUNCTION ANALYSIS

FUNCTION 122 Receive External Communication (Gunner)

TOTAL TIME (Approximate), 22 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Note	Message Alert	G412	Communication (UC)	Attend to Sound A-2	Decode Message C-4			2
Transmit	Acknowledgment	G003	Communication (UC)	Feel Switch; Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3
Release	Radio Transmitter Switch	G680	Communication (UC)	Feel Switch; Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5
Receive	Message	G410	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4			10*
Transmit	Acknowledgment	G003	Communication (UC)	Feel Switch; Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3
Release	Radio Transmitter Switch	G680	Communication (UC)	Feel Switch; Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

FUNCTION 123 Receive External Communication (Pilot)

TOTAL TIME (Approximate) 22 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Note	Message Alert	P412	Communication (UC)	Attend to Sound A-2	Decode Message C-4			2
Transmit	Acknowledgment	P003	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3
Release	Radio Transmitter Switch	P680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5
Receive	Message	P410	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4			10*
Transmit	Acknowledgment	P003	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3
Release	Radio Transmitter Switch	P680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 124 Receive Handover

TOTAL TIME (Approximate) 29.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Note	Message Alert	G412	Communication (UC)	Attend to Sound A-2	Decode Message C-4			2
Transmit	Acknowledgment	G003	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3
Release	Radio Transmitter Switch	G680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	.5
Copy	Target Coordinates	G579	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4	Write Information P-6(R)		12*
Copy	Target Number and Type	G582	Communication (UC)	Receive Auditory Message A-6	Decode Message C-4	Write Information P-6(R)		5*
Transmit	Acknowledgment	G003	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3
Release	Radio Transmitter Switch	G680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	.5

\*The reported time is based on the handover of a single target.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 125 Refuel Aircraft

TOTAL TIME (Approximate)

310.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	MASTER ARM Switch	P396	Weapons (AW)	Visually Inspect Switch Position and Check Light V-2(I)	Verify Current Position Correct (Safe/Light Illuminated) C-2		Toggle - 3 Positions (T-3)	1
Set	TAILWHEEL Switch	P573	Gear (FG)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Locked) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	1
Set	Park Brake	P455	Brakes (FB)	Feel Brake Position K-1(F)	Decide and Verify Correct Position (Locked) C-3	Push Toe Brakes P-2(F)	Directional Foot Press (FP)	2
Set	Brake Lever	P658	Brakes (FB)	Visually Locate Lever V-4(I)	Make Conditioned Association (Lever Set) C-1	Pull Handle P-2(R)	Push-Pull Handle (PPH)	1
Check	Refuel Valve Open Light	P498	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Light Illuminated) C-2			5
Monitor	Fuel Quantity Indicator (Internal)	P661	Fuel (EF)	Visually Monitor Instrument Indication V-3(I)	Recognize Amount of Fuel C-2			300*
Check	Refuel Valve Open Light	P498	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Light Extinguished) C-2			5
Check	Fuel Caps	P261	Fuel (EF)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Caps Installed) C-2			5

\*The reported time represents an estimate of the average amount of time required to refuel the aircraft; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

FUNCTION 126 Respond to Threat

TOTAL TIME (Approximate) 33 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Detect	Threat	P589	Survivability (US)	Detect Visual Image V-1(I)	Recognize Visual Signal (Threat Present) C-2			3
Set	Cyclic WAS Switch	P135	Weapons (AW)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (C) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	.5
Perform	Hard Turns	P299	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R)/W-4(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)		3*
Change	Altitude Sharply	P038	Flight Control/ Flight Instruments/ Symbol Generator/ External Visual Field (FC/FI/ASGVEX)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(B)/W-3(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		3*
Change	Airspeed Quickly	P033	Flight Control/ Flight Instruments/ Symbol Generator (FC/FI/ASG)	Feel Control Movements/ Visually Detect Aircraft Movement K-4(B)/W-3(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)		3*
Check	Radar Jamming Light	P489	Survivability (US)	Visually Register Light V-1	Verify Correct Status (Illuminated) C-2			.5

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.  
 \*\* The reported time represents an estimate of the average amount of time required to respond to a threat; the actual time spent performing the function in a given mission segment may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 127 Restart Engine TOTAL TIME (Approximate) 85.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Set	ENG 2 START Switch	P199	Ignition (EI)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Start) C-3	Move Switch P-1(L)	Springloaded Toggle - 3 Positions (SPT-3)	1	(v)*
Check	ENG 2 Instruments and Lights	P189	Engine Instruments (EIN)	Visually Scan Lights and Monitor Instrument Indications V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status Readouts Within Limits/ Correct Lights Illuminated) C-2			8	
Monitor	ENG 2 NG	P191	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG Has Reached 22%) C-2			10	
Monitor	TGT	P587	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Less Than 150) C-2				
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Idle) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3	
Monitor	Starter Light	P552	Advisory (UAD)	Visually Register Light and Monitor Instrument Indication V-3(I)	Verify Correct Status (Light Extinguished at 52% NG) C-2			5	
Monitor	ENG 2 OIL Pressure	P194	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Pressure Increasing Normally) C-2			4	

\*The length of time for this task may vary with the specific function in which it occurs.

AH-64 FUNCTION ANALYSIS

FUNCTION 120 Restart Engine [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	ENG 2 TGT	P200	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (TGT Increasing Normally) C-2			4
Check	ENG 2 NG	P190	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG Stabilized at 66-68%) C-2			4
Check	Caution/Warning Panel Lights	P099	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Lights Extinguished C-2			4
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Fly) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Check	ENG 2 TGT	P200	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (TGT Increasing Normally) C-2			4
Check	ENG 2 NG	P190	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG Stabilized) C-2			4
Monitor	ENG 2 OIL Pressure	P194	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Pressure Increasing Normally) C-2			4



AH-64 FUNCTION ANALYSIS

FUNCTION 127 Restart Engine [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	ENG 1 PWR Lever		P181	Fuel (EF)	Visually Inspect Lever Position V-2(I)	Verify Current Position Correct (Fly) V-2			Directional Lever - 4 Positions (DL-4)	1
Check	NP and NR		P435	Engine Instruments (EIN)	Visually Inspect Instrument Indications V-2(I)	Interpret Sensory Readout and Verify Correct Status (Readouts Within Limits) C-2				4
Check	Caution/Warning Panel Lights		P099	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Lights Extinguished C-2				4

AH-64 FUNCTION ANALYSIS

FUNCTION 128 Secure Aircraft

TOTAL TIME (Approximate)

230 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Locking Devices	P365	Ground Security (SG)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Installed) C-2			90*
Check	Tiedowns	P590	Ground Security (SG)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Installed) C-2			90*
Check	Grounding Cables	P283	Safety (S)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Installed) C-2			18*
Check	Aircraft Covers	P021	Ground Security (SG)	Visually Inspect Equipment Status V-2(E)	Verify Correct Status (Installed) C-2			90*

\*The reported time represents an estimate of the average amount of time required to check the aircraft security device; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 129 Secure Weapons Systems (Gunner)

TOTAL TIME (Approximate)

20 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
				SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	ACM Switch	G005	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1	Toggle - 2 Positions (T-2)	1
Set	SIGHT SEL Switch (G)	G539	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (STBY) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2
Set	TADS Switch	G564	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	IHADSS Switch	G337	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	FC SYM GEN Switch	G224	Symbol Generator (ASG)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Check	RKT SEL Switch	G514	Rocket Control (ARC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	GUN SEL Switch	G287	Gun Control (AGC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	MSL SEL Switch	G424	Missile Control (AMC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	LSR SEL Switch	G373	Laser (AL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 129 Secure Weapons Systems (Gunner) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	CPG ARM Switch	G132	Weapons (AW)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (Off), and Verify Correct Status (Light Extinguished) C-3	Move Switch P-1(L)	Safety Toggle - 3 Positions (ST-3)	1
Check	PLT/GND ORIDE Switch	G461	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Safety Toggle - 2 Positions (ST-2)	1
Set	ADSS Switch	G014	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	2

AH-64 FUNCTION ANALYSIS

FUNCTION 130 Secure Weapons Systems (Pilot)

TOTAL TIME (Approximate)

13.5 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	SIGHT SEL Switch (P)	P541	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (STBY) C-3	Turn Switch P-2(L)	Rotary - 3 Positions (R-3)	1
Set	ACQ SEL Switch (P)	P009	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Check	VID SEL Switch (P)	P632	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (PLT) C-2		Toggle - 3 Positions (T-3)	1
Set	ACM Switch	P005	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	PNVS Switch	P465	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Safety Toggle - 2 Positions (ST-2)	1
Check	RKT SEL Switch	P514	Rocket Control (ARC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	GUN SEL Switch	P287	Gun Control (AGC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 3 Positions (T-3)	1
Check	MSL SEL Switch	P424	Missile Control (AMC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Set	MASTER ARM Switch	P397	Weapons (AW)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (Off), and Verify Correct Status (Light Extinguished) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 131 Select Firing Position

TOTAL TIME (Approximate) 161.5 Seconds\*\*

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	TGT/NAV Index Code	G588	Fire Control Computer (AFC)	Visually Monitor Switch Indication V-3(I)	Identify and Verify Correct Code C-3	Press Switch P-2(L)	2 Directional Springloaded Press 9 Positions Each (DSP-8)	2
Set	ACQ SEL Switch (G)	G007	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TGT) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (5 Functional) (R-7)	2
Set	SLAVE Switch	G544	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(R)/V-1(I)	Verify Correct Image (Target) C-2	Press Switch P-1(R)	Springloaded Press - 2 Positions (SP-2)	1
Set	SLAVE Switch	G544	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(R)/V-1(I)	Verify Correct Image (Disengaged) C-2	Press Switch P-1(R)	Springloaded Press - 2 Positions (SP-2)	1
Check	Standoff Range (P)	P551	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Distance to Targets) C-5			30*
Check	Standoff Range (G)	G550	Sensor Display/ Maps (VSD/NM)	Visually Scan Sensor Display and Read Map Symbols V-7(I)	Interpret Map Symbols, Identify Sensor Images, and Make Judgment (Distance to Targets) C-6			30*
Select	Field of Fire (P)	P232	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Line of Sight Adequate) C-5			30*

\*The reported time for this task represents an estimate of the average amount of time required to conduct the search; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

\*\*The total time for this function is based on the concurrent performance of certain tasks by both crewmembers.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 131 Select Firing Position [Continued]

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Select	Field of Fire (G)	G231	Sensor Display/Maps (VSD/NM)	Visually Scan Sensor Display and Read Map Symbols V-7(I)	Interpret Map Symbols, Identify Sensor Images, and Make Judgment (Line of Sight Adequate) C-6	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (TR)	30*
Check	Terrain Clearance (P)	P586	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Clearance Adequate) C-5			10*
Check	Terrain Clearance (G)	G585	Sensor Display (VSD)	Visually Scan Sensor Display V-3(I)	Identify Sensor Images and Make Judgment (Clearance Adequate) C-5	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (TR)	10*
Select	Ingress Routes (P)	P347	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Best Route) C-5			20*
Select	Ingress Routes (G)	G346	Sensor Display/Maps (VSD/NM)	Visually Scan Sensor Display and Read Map Symbols V-7(I)	Interpret Map Symbols, Identify Sensor Images, and Make Judgment (Best Route) C-6	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (TR)	20*
Select	Egress Routes (P)	P164	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Best Route) C-5			20*
Select	Egress Routes (G)	G163	Sensor Display/Maps (VSD/NM)	Visually Scan Sensor Display and Read Map Symbols V-7(I)	Interpret Map Symbols, Identify Sensor Images, and Make Judgment (Best Route) C-6	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (TR)	20*

\*The reported time for this task represents an estimate of the average amount of time required to conduct the search; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 131 Select Firing Position [Con'tinued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Backdrop (P)	P072	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (What Terrain Is Behind) C-5				20*
Check	Backdrop (G)	G071	Sensor Display/ Maps (VSD/NM)	Visually Scan Sensor Display and Read Map Symbols V-7(i)	Interpret Map Symbols, Identify Sensor Images, and Make Judgment (What Terrain Is Behind) C-6	Manipulate Thumbwheel P-4(R)		Thumbwheel - Rheostat (TR)	20*
Check	Concealment (P)	P126	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Identify Objects and Make Judgment (Concealment Adequate) C-5				20*
Check	Concealment (G)	G125	Sensor Display/ Maps (VSD/NM)	Visually Scan Sensor Display and Read Map Symbols V-7(i)	Interpret Map Symbols, Identify Sensor Images, and Make Judgment (Concealment Adequate) C-6	Manipulate Thumbwheel P-4(R)		Thumbwheel - Rheostat (TR)	20*

\*The reported time for this task represents an estimate of the average amount of time required to conduct the search; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.



AH-64 FUNCTION ANALYSIS

FUNCTION 132 Select Sensor (DTV)

TOTAL TIME (Approximate)

4.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	Sensor Select Switch	G535	Sensor Control (VSC)	Feel Switch Position/ Visually Detect Sensor Images K-1(L)/W-1(I)	Verify Current Position and Image Correct (DTV) C-2		Toggle - 3 Positions (T-3)	1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/W-1(I)	Evaluate Position Options, Decide Desired Position (W) and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Check	LOS Slave Status	G367	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-5(R)/W-1(I)	Verify Correct Status (Slave Switch Disengaged) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 133 Select Sensor (DVO)

TOTAL TIME (Approximate)

4.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	Sensor Select Switch		G536	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Desired Position (DVO), and Verify Image Correct C-3	Move Switch P-1(L)		Toggle - 3 Positions (T-3)	1
Set	FOV Switch		G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (W), and Verify Image Correct C-3	Move Switch P-1(L)		Springloaded Center Toggle - 4 Positions (SCT-4)	1
Check	LOS Slave Status		G367	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-5(R)/V-1(I)	Verify Correct Status (Slave Switch Disengaged) C-2	Manipulate Thumbwheel P-4(R)		Thumbwheel - Rheostat (T-R)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 134 Select Sensor (FLIR)

TOTAL TIME (Approximate) 4.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/W-1(I)	Evaluate Position Options, Decide Desired Position (FLIR), and Verify Image Correct C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/W-1(I)	Evaluate Position Options, Decide Correct Position (W), and Verify Image Correct C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Check	LOS Slave Status	G367	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-5(R)/W-1(I)	Verify Correct Status (Slave Switch Disengaged) C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 135 Select Weapon, F5AR (Cooperative)

TOTAL TIME (Approximate) 17.5 Seconds\*

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	RKT SEL Switch	B514	Rocket Control (ARC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2		Toggle - 3 Positions (T-3)	1
Set	Cyclic WAS Switch	P135	Weapons (AW)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (R) C-3	Move Switch P-1(R)	Springloaded Toggle - 4 Positions (SPT-4)	.5
Check	HAD Message (Rocket)	P293	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Rocket Ready) C-4			1
Check	Rocket Steering Cursor	P518	Sensor Display (VSD)	Visually Detect Sensor Image V-1(I)	Verify Cursor Displayed C-2			.5
Set	ORT WAS Switch	G451	Weapons (AW)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (R) C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	.5
Check	HAD Message (Rocket)	G293	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Rocket Ready) C-4			1
Set	SIGHT SEL Switch (G)	G539	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TADS) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (6 Functional) (R-7)	2
Set	PEN-M Switch	P457	Rocket Control (ARC)	Visually Monitor Switch Indication V-3(I)	Evaluate Options and Decide Correct Level of Penetration C-3	Move Thumbwheel P-2(L)	Vertical Thumbwheel (VT)	5

\*The total time for this function is based on the concurrent performance of certain tasks by both crewmembers.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 135 Select Weapon, FFAR (Cooperative) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	Rocket Firing Quantity	P517	Rocket Control (ARC)	Visually Monitor Switch Indication V-3(I)	Encode and Verify Correct Entry (Quantity) C-4	Move Thumbwheel P-2(L)		Vertical Thumbwheel (VT)	4
Set	Rocket Zone	P520	Rocket Control (ARC)	Visually Monitor Switch Indication V-3(I)	Evaluate Zone Options and Select Desired Zone C-3	Press Switch P-1(L)		5 Springloaded Press - 2 Positions Each (SP-2)	2

AH-64 FUNCTION ANALYSIS

FUNCTION 136 Select Weapon, FFAR (Pilot)

23.5 Seconds

TOTAL TIME (Approximate)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Pilot RKT SEL Switch		P458	Rocket Control (ARC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2				1
Set	Cyclic WAS Switch		P135	Weapons (AW)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (R) C-3	Move Switch P-1(R)		Springloaded Toggle - 4 Positions (SPT-4)	.5
Check	HAD Message (Rocket)		P293	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Rocket Ready) C-4				1
Set	RNG-KM Thumbwheel		P516	Rocket Control (ARC)	Visually Monitor Switch Indication V-3(I)	Encode and Verify Correct Entry C-4	Move Thumbwheel P-2(L)		Vertical Thumbwheel - 7 Positions (VT-7)	3
Check	HAD Message (Range)		P292	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Range) C-4				2
Set	Rocket Zone		P520	Rocket Control (ARC)	Visually Monitor Switch Indication V-3(I)	Evaluate Zone Options and Select Desired Zone C-3	Press Switch P-1(L)		5 Springloaded Press - 2 Positions Each (SP-2)	2
Set	PEN-M Switch		P457	Rocket Control (ARC)	Visually Monitor Switch Indication V-3(I)	Evaluate Options and Decide Correct Level of Penetration C-3	Move Thumbwheel P-2(L)		Vertical Thumbwheel (VT)	5
Set	Rocket Firing Quantity		P517	Rocket Control (ARC)	Visually Monitor Switch Indication V-3(I)	Encode and Verify Correct Entry (Quantity) C-4	Move Thumbwheel P-2(L)		Vertical Thumbwheel (VT)	4
Check	Rocket Steering Cursor		P518	Sensor Display (VSD)	Visually Detect Sensor Image V-1(I)	Verify Cursor Displayed C-2				.5

AH-64 FUNCTION ANALYSIS

FUNCTION 137 Select Weapon, Gun (Gunner)

TOTAL TIME (Approximate)

20.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	GUN SEL Switch	G287	Gun Control (AGC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2		Toggle - 3 Positions (T-3)	1
Set	ORT WAS Switch	G451	Weapons (AW)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (G) C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	.5
Set	SIGHT SEL Switch (G)	G539	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (HMD) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (6 Functional) (R-7)	2
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (RNG) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2
Enter	DEK Range Data	G145	Fire Control Computer (AFC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Range) C-4	Type Entry P-7(L)	Springloaded Press - Alphanumeric Functions (SP-AN)	5
Check	HAD Message (Range)	G292	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Range) C-4			2
Check	HAD Message (Rounds)	G294	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Number of Rounds) C-4			2
Set	DEK Data Entry Selector Switch	G142	Fire Control Computer (AFC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (STBY) C-3	Turn Switch P-2(L)	Rotary - 7 Positions (R-7)	2

AH-64 FUNCTION ANALYSIS

FUNCTION 138 Select Weapon, Gun (Gunner, Laser Range)

TOTAL TIME (Approximate)

6.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	GUN SEL Switch	G287	Gun Control (AGC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2			Toggle - 3 Positions (T-3)	1
Set	ORT WAS Switch	G451	Weapons (A/W)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (G) C-3	Move Switch P-1(L)		Springloaded Center Toggle - 4 Positions (SCT-4)	.5
Set	SIGHT SEL Switch (G)	G539	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TADS) C-3	Turn Switch P-2(L)		Rotary - 7 Positions (6 Functional) (R-7)	2
Check	LSR SEL Switch	G373	Laser (AL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (On) C-2			Toggle - 2 Positions (T-2)	1



# AH-64 FUNCTION ANALYSIS

FUNCTION 139 Select Weapon, Gun (Pilot)

TOTAL TIME (Approximate)

11 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Check	GUN SEL Switch	P287	Gun Control (AGC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2			Toggle - 3 Positions (T-3)	1	
Set	Cyclic WAS Switch	P135	Weapons (AW)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (G) C-3	Move Switch P-1(R)		Springloaded Toggle - 4 Positions (SPT-4)	.5	
Set	RNG-KM Thumbwheel	P516	Rocket Control (ARC)	Visually Monitor Switch Indication V-3(I)	Encode and Verify Correct Entry C-4	Move Thumbwheel P-2(L)		Vertical Thumbwheel - 7 Positions (VT-7)	3	
Check	HAD Message (Range)	P292	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Range) C-4				2	
Check	HAD Message (Rounds)	P294	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout (Number of Rounds) C-4				2	

AH-64 FUNCTION ANALYSIS

FUNCTION 140 Select Weapon, Missile

TOTAL TIME (Approximate) 16.5 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Set	Missile Control Switch	G416	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Desired Position C-3	Turn Switch P-2(L)	Rotary - 4 Positions (R-4)	2		
Set	ORT WAS Switch	G451	Weapons (AW)	Feel Switch Movement K-2(R)	Evaluate Position Options and Decide Correct Position (M) C-3	Move Switch P-1(R)	Springloaded Center Toggle - 4 Positions (SCT-4)	.5		
Set	Missile Mode Switch	G419	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Turn Switch P-2(L)	Rotary - 4 Positions (R-4)	1		
Check	UPR CHAN Laser Code	G612	Missile Control (AMC)	Visually Inspect Code V-2(I)	Verify Correct Code C-2		2 Directional Springloaded Press - 9 Positions Each (DSP-9)	.5		
Check	UPR CHAN Quantity	G614	Missile Control (AMC)	Visually Inspect Quantity V-2(I)	Verify Correct Quantity C-2		2 Directional Springloaded Press - 3 Positions Each (DSP-3)	.5		
Check	LWR CHAN Laser Code	G378	Missile Control (AMC)	Visually Inspect Code V-2(I)	Verify Correct Code C-2			.5		
Check	LWR CHAN Quantity	G380	Missile Control (AMC)	Visually Inspect Quantity V-2(I)	Verify Correct Quantity C-2			.5		
Check	TADS LRF/D Indicator	G562	Laser (AL)	Visually Inspect Code V-2(I)	Verify Correct Code C-2			1		
Set	CHAN SEL Switch	G108	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Channel Options; Decide and Verify Desired Channel (Upper/Lower) C-3	Move Switch P-1(L)	Springloaded Center Toggle - 3 Positions (SCT-3)	1		

# AH-64 FUNCTION ANALYSIS

## FUNCTION 140 Select Weapon, Missile [Continued]

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	HAD Message (Mode)	G291	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status C-4			1
Check	HAD Message (Missile)	G290	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Fire Missile) C-4			1
Check	AND Display (Priority)	G046	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Priority Correct) C-4			1

AH-64 FUNCTION ANALYSIS

FUNCTION 141 Select Weapon, Missile (Remote Designation)

TOTAL TIME (Approximate)

15 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Missile Control Switch	G416	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(l)	Evaluate Position Options and Decide Desired Position C-3	Turn Switch P-2(L)	Rotary - 4 Positions (R-4)	2
Set	Missile Mode Switch	G419	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(l)	Evaluate Position Options and Decide Correct Position (NORM) C-3	Turn Switch P-2(L)	Rotary - 4 Positions (R-4)	1
Set	ORT WAS Switch	G451	Weapons (AW)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (M) C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	.5
Check	UPR CHAN Laser Code	G612	Missile Control (AMC)	Visually Inspect Code V-2(l)	Verify Correct Code C-2		2 Directional Springloaded Press - 9 Positions Each (DSP-9)	.5
Check	UPR CHAN Quantity	G614	Missile Control (AMC)	Visually Inspect Quantity V-2(l)	Verify Correct Quantity C-2		2 Directional Springloaded Press - 3 Positions Each (DSP-3)	.5
Check	LWR CHAN Laser Code	G378	Missile Control (AMC)	Visually Inspect Code V-2(l)	Verify Correct Code C-2			.5
Check	LWR CHAN Quantity	G380	Missile Control (AMC)	Visually Inspect Quantity V-2(l)	Verify Correct Quantity C-2			.5
Set	CHAN SEL Switch	G108	Missile Control (AMC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(l)	Evaluate Channel Options; Decide and Verify Desired Channel (Upper/Lower) C-3	Move Switch P-1(L)	Springloaded Center Toggle - 3 Positions (SCT-3)	1

# AH-64 FUNCTION ANALYSIS

## FUNCTION 141 Select Weapon, Missile (Remote Designation) [Continued]

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Check	AND Display (Priority)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Priority Correct) C-4				1
Check	HAD Message (Mode)	G291	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (NORM) C-4				1
Check	HAD Message (Missile)	G290	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Fire Missile) C-4				1

AH-64 FUNCTION ANALYSIS

FUNCTION 142 Set TADS Internal Boresight (DTV)

TOTAL TIME (Approximate)

92.5 Seconds

TASKS			WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	SIGHT SEL Switch (G)	G538	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (TADS) C-2		Rotary - 7 Positions (6 Functional) (R-7)	1
Check	Sensor Select Switch	G535	Sensor Control (VSC)	Feel Switch Position/Visually Detect Sensor Images K-1(LJV-1(I))	Verify Current Position and Image Correct (DTV) C-2		Toggle - 3 Positions (T-3)	1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(LJV-1(I))	Evaluate Position Options, Decide Correct Position (N), and Verify Correct Image C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Set	IAT Polarity Switch	G322	Sensor Display (VSD)	Feel Switch Movement K-2(R)	Evaluate Position Options and Select Correct Position (White or Black) C-3	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	1
Set	TADS BRSIT Switch	G560	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (TADS) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Set	LSR SEL Switch	G374	Laser (AL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (On) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1
Check	PLT/GND ORIDE Switch	G461	Electrical (UEL)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (ORIDE) C-2		Safety Toggle - 2 Positions (ST-2)	1
Set	CPG ARM Switch	G132	Weapons (AW)	Visually Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (ARM), and Verify Correct Status (Light Illuminated) C-3	Move Switch P-1(L)	Safety Toggle - 3 Positions (ST-3)	1
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1

AH-64 FUNCTION ANALYSIS

FUNCTION 142 Set TADS Internal Borelight (DTV) (Continued)

TASKS		WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR	
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Up) C-3	Move Switch P-1(L)	1
Monitor	Tracking Gates	G594	Sensor Display (VSD)	Visually Monitor Sensor Images V-3(I)	Verify Switch Engaged (Gates Tracking) C-2		30*
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Center) C-3	Move Switch P-1(L)	1
Verify	Borelight (Internal)	G084	Sensor Display (VSD)	Visually Detect Sensor Images V-1(I)	Verify Correct Image (Gates Disappear) C-2		3
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Deactivated) C-2	Release Trigger P-1(R)	.5
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L/VV-1(I))	Evaluate Position Options, Decide Correct Position (Z), and Verify Correct Image C-3	Move Switch P-1(L)	1
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover; Pull and Hold Trigger P-1(R)	1
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Up) C-3	Move Switch P-1(L)	1
Monitor	Tracking Gates	G594	Sensor Display (VSD)	Visually Monitor Sensor Images V-3(I)	Verify Switch Engaged (Gates Tracking) C-2		30*

\*The reported time represents an estimate of the average amount of time required to monitor the tracking gates during this function; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 142 Set TADS Internal Boresight (DTV) [Continued]

TASKS				WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Verify	Boresight (Internal)	G084	Sensor Display (VSD)	Visually Detect Sensor Images V-1(I)	Verify Correct Image (Gates Disappear) C-2			3
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Center) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Make Automatic Association (Trigger Released) C-1	Release Trigger P-1(R)	Springloaded Trigger (SPTR)	.5



AH-64 FUNCTION ANALYSIS

FUNCTION 143 Set TADS Internal Borelight (DVO)

TOTAL TIME (Approximate) 27 Seconds

TASKS			WORKLOAD COMPONENTS					SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (DVO), and Verify Correct Image C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1	
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (N), and Verify Correct Image C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1	
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Down) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1	
Adjust	DVO Crosshairs Alignment	G161	Sensor Display (VSD)	Visually Align Feature V-4(I)	Verify Correct Status (Crosshairs Aligned) C-2	Move Switch P-1(R)	Toggle - 3 Positions (T-3)	15	
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Center) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1	
Set	TADS BRSIT Switch	G560	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1	
Check	ACQ SEL Switch (G)	G006	Sensor Control (VSC)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (FXD) C-2		Rotary - 7 Positions (5 Functional) (R-7)	2	
Set	SLAVE Switch	G544	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(R)/V-1(I)	Verify Correct Image (Fixed Forward) C-2	Press Switch P-1(R)	Springloaded Press - 2 Positions (SP-2)	1	

# AH-64 FUNCTION ANALYSIS

## FUNCTION 144 Set TADS Internal Borelight (FLIR)

TOTAL TIME (Approximate)

92.5 Seconds

TASKS		WORKLOAD COMPONENTS					SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Sensor Select Switch	G536	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (FLIR), and Verify Correct Image C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/ Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Position Options, Decide Correct Position (N), and Verify Correct Image C-3	Move Switch P-1(L)	Springloaded Center Toggle - 4 Positions (SCT-4)	1
Adjust	FLIR Level/Gain	G246	Sensor Display (VSD)	Visually Discriminate Light Intensities V-6(I)	Decide Desired Level C-3	Turn Switches P-2(L)	2 Rotary - Rheostat (R-R)	4
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(R)	Springloaded Trigger (SPTR)	1
Set	FLIR Polarity Reversal Switch	G247	Sensor Display (VSD)	Feel Switch Movement/ Visually Discriminate Sensor Images K-2(R)/V-6(I)	Decide Desired Image (White or Black) C-3	Press Switch P-1(R)	Springloaded Press - 2 Positions (SP-2)	1
Set	BRSIT Enable Switch	G088	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Up) C-3	Move Switch P-1(L)	Toggle - 3 Positions (T-3)	1
Monitor	Tracking Gates	G594	Sensor Display (VSD)	Visually Monitor Sensor Images V-3(I)	Verify Switch Engaged (Gates Tracking) C-2			30*
Verify	Borelight (Internal)	G084	Sensor Display (VSD)	Visually Detect Sensor Images V-1(I)	Verify Correct Image (Gates Disappear) C-2			

\*The reported time represents an estimate of the average amount of time required to monitor the tracking gates during this function; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

FUNCTION 144 Set TADS Internal Boresight (FLIR) [Continued]

TASKS		WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR	
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Center) C-3	Move Switch P-1(L)	1
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Deactivated) C-2	Release Trigger P-1(R)	5
Set	FOV Switch	G253	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L, J-1(I))	Evaluate Position Options, Decide Correct Position (Z), and Verify Correct Image C-3	Move Switch P-1(L)	1
Pull	Laser Trigger	G361	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Activated) C-2	Lift Cover, Pull and Hold Trigger P-1(R)	1
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Up) C-3	Move Switch P-1(L)	1
Monitor	Tracking Gates	G594	Sensor Display (VSD)	Visually Monitor Sensor Images V-3(I)	Verify Switch Engaged (Gates Tracking) C-2		30"
Verify	Boresight (Internal)	G084	Sensor Display (VSD)	Visually Detect Sensor Images V-1(I)	Verify Correct Image (Gates Disappear) C-2		
Set	BRSIT Enable Switch	G086	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Evaluate Position Options and Decide Correct Position (Center) C-3	Move Switch P-1(L)	1
Release	Laser Trigger	G362	Laser (AL)	Feel Trigger Movement K-2(R)	Verify Correct Position (Laser Deactivated) C-2	Release Trigger P-1(R)	5

\*The reported time represents an estimate of the average amount of time required to monitor the tracking gates during this function; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 144 Set TADS Internal Borelight (FLIR) (Continued)

TASKS				WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	CPG ARM Switch	G132	Weapons (AW)	Visual v Scan Switch Positions, Monitor Placement of Switch, and Check Light V-3(I)	Evaluate Position Options, Decide Correct Position (SAFE), and Verify Correct Status (Light Illuminated) C-3	Move Switch P-1(L)	Safety Toggle - 3 Positions (ST-3)	1	
Set	LSR SEL Switch	G374	Laser (AL)	Visually Scan Switch Position and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Toggle - 2 Positions (T-2)	1	

AH-64 FUNCTION ANALYSIS

FUNCTION 145 Shut Down Engines

TOTAL TIME (Approximate)

23.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	DASE Release Switch	P138	Flight Control (FC)	Feel Switch Movement K-2(R)	Make Conditioned Association C-1	Press Switch P-1(R)	Springloaded Press (SP)	.5
Set	Standby Attitude Indicator	P549	Flight Instruments (FI)	Visually Scan Instrument and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Caged) C-3	Pull, Release, and Turn Knob P-2(L)	Pull-Turn Knob (PTK)	2
Set	VDU Control Switch	P622	Sensor Control (VSC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	1
Set	RAD ALT Switches	P486	Flight Instruments (FI)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switches P-2(R)	2 Rotary - Continuous (R-CN)	1
Set	HARS Control Switch	P302	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Turn Switch P-2(R)	Rotary - 4 Positions (R-4)	1
Check	SHAFT DRIVEN COMP Warning Light	P537	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished) C-2			.5
Set	PWR Levers	P479	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Levers P-2(L)	2 Directional Levers - 4 Positions Each (DL-4)	5
Check	EXT TK Fuel Switch	P219	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Check	Fuel CROSSFEED Switch	P262	Fuel (EF)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (NORM) C-2		Safety Toggle - 3 Positions (ST-3)	1

# AH-64 FUNCTION ANALYSIS

## FUNCTION 145 Shut Down Engines [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Monitor	TGT	P587	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (TGT Decreasing Normally) C-2			(v)*
Set	RTR BK Switch	P528	Rotor (FR)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Brake—Below 50% NR) C-3	Move Switch P-1(L)	Safety Toggle - 3 Positions (ST-3)	1

\*The length of time for this task may vary with the specific function in which it occurs.

# AH-64 FUNCTION ANALYSIS

FUNCTION 146 Start APU (Postflight)

TOTAL TIME (Approximate) 14.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	APU Control Switch	P054	APU (UAP)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options (RUN) C-3	Move Switch P-1(R)	Safety Toggle - 3 Positions (ST-3)	2
Set	APU Control Switch	P054	APU (UAP)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (START) C-3	Move Switch P-1(R)	Safety Toggle - 3 Positions (ST-3)	2
Check	APU Starting	P061	APU (UAP)	Detect Engine Sound/ Visually Inspect Instrument Indication A-3V-2(I)	Verify Correct Status (APU Starting) C-2			2
Check	APU FAIL Light	P056	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished Within 5 Sec.) C-2			5
Check	APU ON Light	P060	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2			1

# AH-64 FUNCTION ANALYSIS

FUNCTION 147 Start APU (Preflight)

TOTAL TIME (Approximate) 30 Seconds

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR			
Alert	Fireguard		P238	Safety (S)	Visually Detect Object/Receive Speech Feedback V-1(E)/A-4	Verify Correct Status (Guard Present and Ready) C-2	Press Switch, Speak, and Give Hand Signal P-3(R)			2
Check	Utility Hydraulic Accumulator		P617	Hydraulics (FH)	Visually Inspect Instrument Indication V-2(I)	Verify Readout Correct (2600 PSI Minimum) C-2				2
Initialize	APU		P052	APU (UAP)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options (RUN) and Decide Correct Position C-3	Move Switch P-1(R)		Safety Toggle - 3 Positions (ST-3)	5
Set	APU Control Switch		P054	APU (UAP)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options (START) and Decide Correct Position C-3	Move Switch P-1(R)		Safety Toggle - 3 Positions (ST-3)	2
Check	APU Starting		P061	APU (UAP)	Detect Engine Sound/Visually Inspect Instrument Indication A-3/V-2(I)	Verify Correct Status (APU Starting) C-2				2
Check	APU FAIL Light		P056	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Extinguished Within 5 Sec.) C-2				5
Check	APU ON Light		P060	Advisory (UAD)	Visually Register Light V-1(I)	Verify Correct Status (Illuminated) C-2				1
Set	GEN 1 Switch		P274	Electrical (UEL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options (GEN) and Decide Correct Position C-3	Move Switch P-1(L)		Safety Toggle - 3 Positions (ST-3)	2
Set	GEN 2 Switch		P277	Electrical (UEL)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options (GEN) and Decide Correct Position C-3	Move Switch P-1(L)		Safety Toggle - 3 Positions (ST-3)	2



# AH-64 FUNCTION ANALYSIS

## FUNCTION 147 Start APU (Preflight) (Continued)

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR			
Check	Generator Lights	P279	Advisory (UAD)	Visually Inspect Lights V-2(l)	Verify Correct Status (Extinguished) C-2				2

AH-64 FUNCTION ANALYSIS

FUNCTION 148 Start First Engine

TOTAL TIME (Approximate)

69 Seconds

TASKS			SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	ID #		SENSORY	COGNITIVE	PSYCHOMOTOR		
Check.	RTR BK Switch	P527	Rotor (FR)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off or Locked) C-2		Safety Toggle - 3 Positions (ST-3)	1
Set	ENG 1 START Switch	P184	Ignition (EI)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Start) C-3	Move Switch P-1(L)	Springloaded Toggle - 3 Positions (SPT-3)	1
Check	ENG 1 Instruments and Lights	P173	Engine Instruments (EIN)	Visually Scan Lights and Monitor Instrument Indications V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits/ Correct Lights Illuminated) C-2			8
Monitor	ENG 1 NG	P175	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG Has Reached 22%) C-2			10
Set	ENG 1 PWR Lever	P182	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Idle) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Monitor	Starter Light	P552	Advisory (UAD)	Visually Register Light and Monitor Instrument Indication V-3(I)	Verify Correct Status (Light Extinguished at 52% NG) C-2			5
Monitor	ENG 1 OIL Pressure	P178	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Pressure Increasing Normally) C-2			4

AH-64 FUNCTION ANALYSIS

FUNCTION 148 Start First Engine (Continued)

TASKS			WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	ENG 1 TGT	P185	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (TGT Increasing Normally) C-2			4
Check	ENG 1 NG	P174	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG Stabilized at 66-68%) C-2			4
Check	Caution/Warning Panel Lights	P099	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Lights Extinguished C-2			4
Check	ENG INLET Anti-Ice Switch	P204	Anti-Ice (UAI)	Visually Inspect Switch Position V-2(I)	Verify Current Position Correct (Off) C-2		Toggle - 2 Positions (T-2)	1
Set	RTR BK Switch	P528	Rotor (FR)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Off) C-3	Move Switch P-1(L)	Safety Toggle - 3 Positions (ST-3)	1
Set	ENG 1 PWR Lever	P182	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Fly) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Check	ENG 1 TGT	P185	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (TGT Increasing Normally) C-2			4
Check	ENG 1 NG	P174	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG Increasing Normally) C-2			4

# AH-64 FUNCTION ANALYSIS

## FUNCTION 148 Start First Engine (Continued)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE		PSYCHOMOTOR		
Monitor	ENG 1 OIL Pressure		P178	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Pressure Increasing Normally) C-2				4

# AH-64 FUNCTION ANALYSIS

FUNCTION 149 Start Second Engine

TOTAL TIME (Approximate)

73.5 Seconds

73.5 Seconds

73.5 Seconds (Approximate)

TASKS				WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT	ID #	SUBSYSTEM(S)	SENSORY	COGNITIVE	PSYCHOMOTOR			
Set	ENG 2 START Switch	P199	Ignition (EI)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (Start) C-3	Move Switch P-1(L)	Springloaded Toggle - 3 Positions (SPT-3)	1	
Check	ENG 2 Instruments and Lights	P189	Engine Instruments (EIN)	Visually Scan Lights and Monitor Instrument Indications V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Readouts Within Limits/Correct Lights Illuminated) C-2			8	
Monitor	ENG 2 NG	P191	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG Has Reached 22%) C-2			10	
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Idle) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3	
Monitor	Starter Light	P552	Advisory (UAD)	Visually Register Light and Monitor Instrument Indication V-3(I)	Verify Correct Status (Light Extinguished at 52% NG) C-2			5	
Monitor	ENG 2 OIL Pressure	P194	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Pressure Increasing Normally) C-2			4	
Check	ENG 2 TGT	P200	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (TGT Increasing Normally)			4	

AH-64 FUNCTION ANALYSIS

FUNCTION 149 Start Second Engine [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	ENG 2 NG	P190	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG Stabilized at 66-68%) C-2			4
Check	Caution/Warning Panel Lights	P099	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Lights Extinguished C-2			4
Set	ENG 2 PWR Lever	P197	Fuel (EF)	Feel Lever Movement K-3(L)	Evaluate Position Options and Decide Correct Position (Fly) C-3	Move Lever P-2(L)	Directional Lever - 4 Positions (DL-4)	3
Check	ENG 2 TGT	P200	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (TGT Increasing Normally) C-2			4
Check	ENG 2 NG	P190	Engine Instruments (EIN)	Visually Inspect Instrument Indication V-2(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (NG increasing Normally) C-2			4
Monitor	ENG 2 OIL Pressure	P194	Engine Instruments (EIN)	Visually Monitor Instrument Indication V-3(I)	Interpret Sensory and Symbolic Readouts and Verify Correct Status (Pressure Increasing Normally) C-2			4
Check	NP and NR	P435	Engine Instruments (EIN)	Visually Inspect Instrument Indications V-2(I)	Interpret Sensory/Readouts and Verify Correct Status (Readouts Within Limits) C-2			4
Check	Caution/Warning Panel Lights	P099	Advisory (UAD)	Visually Scan and Register Lights V-3(I)	Verify Correct Lights Extinguished C-2			4

# AH-64 FUNCTION ANALYSIS

## FUNCTION 150 Track Target (IHADSS/Gunner)

TOTAL TIME (Approximate)

Continuous\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Align	IH-ADSS LOS Reticle on Target	G335	Sensor Display (VSD)	Visually Align Feature V-4(I)	Verify Reticle Aligned C-2	Move Head P-4(H)		4
Follow	Target With IHADSS	G583	Sensor Display (VSD)	Visually Track Feature V-5(I)	Verify Reticle Aligned C-2	Move Head P-4(H)		(c)*

\*The function "Track Target (IHADSS/Gunner)" is a continuous function whose length may vary with the specific segment in which it occurs; the length of the task "Follow Target With IHADSS," in turn, is determined by the length of the function.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 151 Track Target (IHADSS/Pilot)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT				SENSORY	COGNITIVE	PSYCHOMOTOR		
Align	IHADSS LOS Reticle on Target		P335	Sensor Display (VSD)	Visually Align Feature V-4(I)	Verify Reticle Aligned C-2	Move Head P-4(H)		4
Follow	Target With IHADSS		P583	Sensor Display (VSD)	Visually Track Feature V-5(I)	Verify Reticle Aligned C-2	Move Head P-4(H)		
									(c)

\*The function "Track Target (IHADSS/Pilot)" is a continuous function whose length may vary with the specific segment in which it occurs; the length of the task "Follow Target With IHADSS," in turn, is determined by the length of the function.



AH-64 FUNCTION ANALYSIS

FUNCTION 152 Track Target (Image Autotracker)

TOTAL TIME (Approximate)

Continuous\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	IAT Polarity Switch	G321	Sensor Display (VSD)	Feel Switch Position K-1(R)	Verify Current Position Correct (Black on White) C-2		Toggle - 3 Positions (T-3)	1
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L)/V-1(I)	Evaluate Sensory Feedback and Verify Correct Status (Gates Tracking) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Observe	Tracking Gates	G595	Sensor Display (VSD)	Visually Detect Sensor Images V-1(I)	Verify Switch Engaged (Gates Tracking) C-2			2
Check	AND Display (Tracking)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (IAT Tracking) C-4			1
Monitor	Tracking Gates	G594	Sensor Display (VSD)	Visually Monitor Sensor Images V-3(I)	Verify Switch Engaged (Gates Tracking) C-2			(c)*

\*The function "Track Target (Image Autotracker)" is a continuous function whose length may vary with the specific segment in which it occurs; the length of the task "Monitor Tracking Gates" in turn, is determined by the length of the function.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 153 Track Target (Image Autotracker Offset)

TOTAL TIME (Approximate)

Continuous\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	IAT Polarity Switch	G321	Sensor Display (VSD)	Feel Switch Position K-1(R)	Verify Current Position Correct (Black on White) C-2		Toggle - 3 Positions (T-3)	1
Set	IAT Switch	G323	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(R/VV-3(I))	Evaluate Sensory Feedback and Verify Correct Status (Gates Tracking) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Observe	Tracking Gates	G595	Sensor Display (VSD)	Visually Detect Sensor Images V-1(I)	Verify Switch Engaged (Gates Tracking) C-2			2
Check	AND Display (Tracking)	G048	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (IAT Tracking) C-4			1
Check	AND Display (Polarity)	G045	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Polarity Correct) C-4			1
Set	IAT OFS Switch	G320	Sensor Control (VSC)	Feel Switch Movement/Visually Detect Sensor Images K-2(L/VV-1(I))	Evaluate Sensory Feedback and Verify Correct Position (Switch Engaged) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1
Check	AND Display (Offset)	G044	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (IAT Offset On) C-4			1
Manipulate	MAN TKR Thumbwheel	G392	Sensor Control (VSC)	Feel Switch Movement/Visually Track Sensor Images K-5(R/VV-5(I))	Evaluate Images C-5	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	

\*The function "Track Target (Image Autotracker Offset)" is a continuous function whose length may vary with the specific segment in which it occurs; the length of the task "Manipulate MAN TKR Thumbwheel," in turn, is determined by the length of the function.

# AH-64 FUNCTION ANALYSIS

FUNCTION 153 Track Target (Image Autotracker Offset) [Continued]

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Monitor	Tracking Gates	G594	Sensor Display (VSD)	Visually Monitor Sensor Images V-3(I)	Verify Gates Tracking C-2			(c)*

\*The function "Track Target (Image Autotracker Offset)" is a continuous function whose length may vary with the specific segment in which it occurs; the length of the task "Monitor Tracking Gates," in turn, is determined by the length of the function.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 154 Track Target (Manual)

Continuous\*

TOTAL TIME (Approximate)

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR			
Press	LMC Button	G364	Sensor Control (VSC)	Feel Switch Movement K-2(L)	Verify Correct Position (On) C-2	Press Switch P-1(L)	Springloaded Press - 2 Positions (SP-2)	1	(c)*
Check	AND Display (LMC)	G042	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (LMC On) C-4			1	
Maintain	Reticle Alignment on Target	G510	Sensor Display (VSD)	Feel Switch Movement/ Visually Track Feature K-5(R)/V-5(I)	Verify Reticle Aligned C-2	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)		

\*The function "Track Target (Manual)" is a continuous function whose length may vary with the specific segment in which it occurs; the length of the task "Maintain Reticle Alignment on Target" in turn, is determined by the length of the function.

AH-64 FUNCTION ANALYSIS

FUNCTION 155 Transmit Message (Attack Coordination)

TOTAL TIME (Approximate)

21 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Transmit	Message Alert	G413	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	3
Release	Radio Transmitter Switch	G680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5
Note	Acknowledgment	G002	Communication (UC)	Verify Auditory Feedback A-4	Decode Message C-4			2
Transmit	Message	G411	Communication (UC)	Feel Switch Movement and Receive Speech Feedback K-1(R)/A-4	Encode Message C-4	Press Switch and Speak P-3(R)	Springloaded Toggle - 3 Positions (SPT-3)	10*
Release	Radio Transmitter Switch	G680	Communication (UC)	Feel Switch Movement K-1(R)	Make Automatic Association (Switch Released) C-1	Release Switch P-1(R)	Springloaded Toggle - 3 Positions (SPT-3)	5
Note	Acknowledgment	G002	Communication (UC)	Verify Auditory Feedback A-4	Decode Message C-4			2

\*The reported time represents an estimate of the average amount of time required to perform the communication; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

# AH-64 FUNCTION ANALYSIS

## FUNCTION 156 Unmask Aircraft

TOTAL TIME (Approximate)

14 Seconds\*\*

TASKS			ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS				SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT	SENSORY			COGNITIVE	PSYCHOMOTOR				
Increase	Altitude	P037	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements and Visually Detect Aircraft Movement K-4(L)/V-3(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(L)	5			
Control	Drift	P160	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements and Visually Detect Aircraft Movement K-4(R)/V-1(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)	.5*			
Control	Heading	P305	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements and Visually Detect Aircraft Movement K-4(F)/V-3(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(F)	.5*			
Check	Weapon Path	P640	External Visual Field (VEX)	Visually Search External Field of View V-3(E)	Verify Weapons Path Clear C-2		.5*			
Maintain	Obstacle Clearance	P439	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements/ Visually Orient Aircraft K-4(R)/V-4(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(R)	.5*			
Stabilize	Aircraft	P019	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements and Visually Detect Aircraft Movement K-4(B)/V-3(E)	Make Conditioned Association (Adjustment Needed) C-1	Control Pressure P-4(B)	3			

\*Represents a task that occurs randomly throughout the length of the function; the time reported for the task is the amount of time required to perform the task on each random occurrence.  
 \*\*The reported time represents an estimate of the average amount of time required to unmask the aircraft; the actual time required to perform the function in a given mission segment may be significantly higher or lower than the reported time.

AH-64 FUNCTION ANALYSIS

FUNCTION 157 Update Doppler (Landmark) TOTAL TIME (Approximate) 242 Seconds\*\*

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/ CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	DEST DISP Thumbwheel	G147	Navigation Control (NC)	Visually Monitor Switch Indication V-3(I)	Decide and Verify Correct Position (P) C-3	Turn Thumbwheel P-2(R)	Vertical Thumbwheel - 9 Positions (VT-9)	5
Set	Doppler Display Selector Switch	G152	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (DEST/7GT) C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	2
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (Display Frozen) C-2	Press Key P-1(R)	Springloaded Press (SP)	1
Enter	UTM Coordinates	G619	Navigation Control (NC)	Visually Locate Keys and Read Symbolic Display V-7(I)	Encode and Verify Correct Entry (Coordinates) C-4	Type Entry P-7(R)	Springloaded Press - Alphanumeric Function (SP-AN)	12
Check	Heading Indicator (Inflight)	P663	Flight Control/ Flight Instruments (FC/FI)	Feel Control Movements and Visually Inspect Instrument Indication K-4(B)/V-2(I)	Interpret Readout and Verify Correct Status C-2	Control Pressure P-4(B)		1
Maneuver	Aircraft Across Landmark	P020	Flight Control/ External Visual Field (FC/VEX)	Feel Control Movements and Visually Orient Aircraft K-4(R)/V-4(E)	Interpret Sensory Feedback and Symbolic Readout; Make Judgment (Correct Landmark) C-6	Control Pressure P-4(R)		240
Press	Doppler Data Entry Key	G149	Navigation Control (NC)	Visually Locate Key and Read Symbolic Display V-7(I)	Verify Entry Correct (UTM Coordinates) C-4	Press Key P-1(R)	Springloaded Press (SP)	1
Set	Doppler Display Selector Switch	G152	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (DIST/BRG/TIME) C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	2

\*The reported time represents an estimate of the average amount of time required to maneuver the aircraft across a designated landmark; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.

\*\*The total time is based on the concurrent performance of certain tasks by both crewmembers.

# AH-64 FUNCTION ANALYSIS

FUNCTION 158 Update Doppler (Stored Destination)

TOTAL TIME (Approximate) 50.5 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VE. J	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Set	Doppler Display Selector Switch	G152	Navigation Control (NC)	Visually Scan Switch Positions and Monitor Placement of Switch V-3(I)	Evaluate Position Options and Decide Correct Position (DIST/BRG TIME) C-3	Turn Switch P-2(R)	Rotary - 7 Positions (R-7)	2
Read	Maps	G394	Navigation Control (NC)	Read Map Symbols V-7(I)	Interpret Map Symbols C-4	Handle Maps P-5(L)		4
Verify	Aircraft Location (G)	G025	External Visual Field (VEX)	Visually Search External Field of View V-7(E)	Interpret Map Symbols, Identify Objects and Sensor Images, and Make Judgment (Location Correct) C-6	Manipulate Thumbwheel P-4(R)	Thumbwheel - Rheostat (T-R)	40*
Press	Doppler KYBD Key	G153	Navigation Control (NC)	Visually Locate Key and Inspect Display Status V-4(I)	Verify Correct Status (Display Frozen) C-2	Press Key P-1(R)	Springloaded Press (SP)	1
Press	Doppler Data Entry Key	G149	Navigation Control (NC)	Visually Locate Key and Read Symbolic Display V-7(I)	Verify Entry Correct (UTM Coordinates) C-4	Press Key P-1(R)	Springloaded Press (SP)	1

\*The reported time represents an estimate of the average amount of time required to verify the aircraft location; the actual time spent performing the task on a given occasion may be significantly higher or lower than the reported time.



# AH-64 FUNCTION ANALYSIS

FUNCTION 159 Verify Remote Lock-On TOTAL TIME (Approximate) 3 Seconds

TASKS		ID #	SUBSYSTEM(S)	WORKLOAD COMPONENTS			SWITCH DESCRIPTION	DURATION (SECONDS) DISCRETE/CONTINUOUS
VERB	OBJECT			SENSORY	COGNITIVE	PSYCHOMOTOR		
Check	AND Display (Priority)	G046	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Priority Correct) C-4			1
Verify	HAD Message (Tracking)	G298	Fire Control Computer (AFC)	Read Symbolic Display V-7(I)	Interpret Symbolic Readout and Verify Correct Status (Channel Tracking) C-4			1